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# Video Equipment

## 1997

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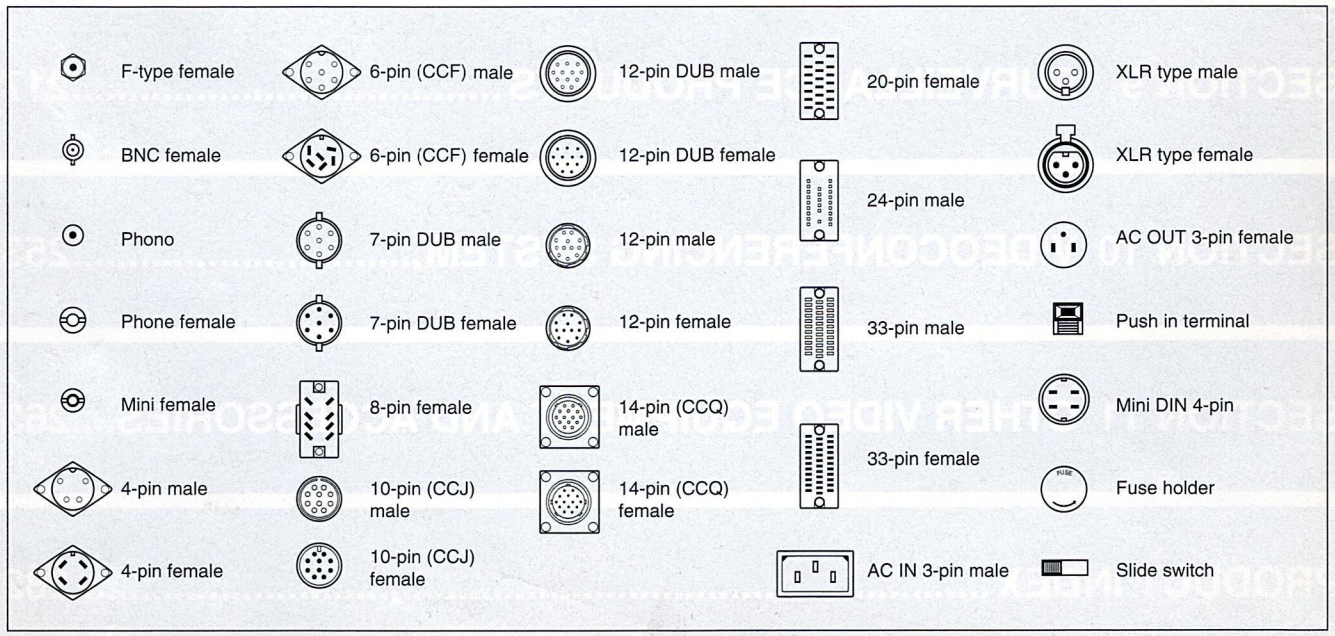

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# PVW-2800P

BETACAM SP 2000 PRO

## Recorder/player

•Superior picture quality, inherent in the Betacam SP format •More than 100 minutes of recording/playback time using L-size Metal (for both recording and playback) or Oxide (for playback only) cassettes •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with Dolby C-type NR (Noise Reduction) system •RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, BVU series U-matics) •Built-in comprehensive editing facilities •Dynamic Motion Control with memory provides slow-motion editing capability (when used with a player VTR equipped with DT function) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits generator and reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation •Y/R-Y/B-Y component signal inputs and outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) input/output connectors •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 25kg/55 lb 2 oz) •Low power consumption (150W)

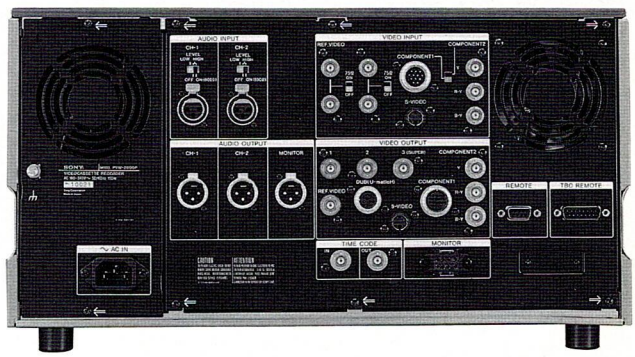
| | |
|---|---|
| Supplied accessories: | AC power cord |
| | Remote control cable RCC-5G (9-pin) |
| | PSW 4 × 16 screws for rack mounting (4) |
| | Operation manual |
| Optional accessories: | TBC Remote Controller UVR-60P |
| | Component colour corrector BVX-10P |
| | Control panel extention kit BKW-2010 |
| | U-matic DUB out kit BKW-2030 |
| | Control panel case BK-803 |
| | 12-pin dubbing cable VDC-C5 (5m) |
| | Remote control cable RCC-5G/10G/30G (5m/10m/30m) |
| | Rack mount kit RMM-110 |
| | S-video cable SYC-2/5 (2m/5m) |

## Specifications

### General

| | |
|---|---|
| Type: | Recorder/Player |
| Video recording system: | Rotary 4 head helical scan |
| | Luminance: FM recording |
| | Chrominance: FM recording (CTDM recording) |
| Video Signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 150W |
| Humidity: | Less than 80% (relative humidity) |
| Mass: | Approx. 25kg (55 lb 2 oz) |
| Dimensions: | 427(W) × 237(H) × 549(D)mm ($16^{7}/_{8} \times 9^{3}/_{8} \times 21^{5}/_{8}$ inches) (including projecting parts) |
| Tape speed: | 10.15cm/s |
| REC/Playback time: | More than 100min with BCT-90MLA |
| | More than 35min with BCT-30MA |
| Fast Foward/Rewind time: | |
| | Less than 3min with BCT-90MLA |
| Search speed: | |
| SHUTTLE | 19 steps, still to 24 times normal speed, forward and reverse |
| JOG | Frame by frame, forward and reverse |

| | Metal Particle Tape | Oxide Tape*1 |
|---|---|---|
| **Video performance** | | |
| Bandwidth: | | |
| Luminance (50% modulation) | 25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB | 25Hz to 4.0MHz $^{+0.5}_{-6.0}$ dB |
| Colour difference (50% modulation) | 25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB | 25Hz to 1.5MHz $^{+0.5}_{-3.0}$ dB |
| S/N ratio: | | |
| Luminance | More than 48dB | More than 46dB |
| Chrominance AM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| PM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| Differential gain | Less than 3% | — |
| Differential phase | Less than 3° | — |
| K-factor (2T pulse) | Less than 2% | Less than 3% |
| Y/C delay | Less than 20ns | Less than 20ns |
| **Audio performance** | | |
| Frequency response (20dB below peak level)*2 | 50Hz to 15kHz $^{+1.5}_{-3.0}$ dB | 50Hz to 15kHz ±3.0dB |
| S/N ratio (at peak level*2 weighed CCIR 468-3) | More than 68dB (Dolby NR ON) | More than 62dB (Dolby NR ON) |
| Distortion (at 1kHz) at operational level (4dBu) | Less than 1.0% | Less than 2.0% |
| Wow and flutter (DIN45507) | Less than 0.1% rms | Less than 0.1% rms |




### Signal inputs

| | |
|---|---|
| REF VIDEO IN (BNC): | 1.0Vp-p, 75Ω |
| VIDEO IN (BNC): | Composite video, 1.0Vp-p, 75Ω, sync negative |
| COMPONENT IN 1 (12-pin male)*3: | |
| Luminance | 1.0Vp-p, 75Ω, sync negative |
| Colour difference | R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω |
| COMPONENT IN 2 (BNC × 3)*3: | |
| Luminance | 1.0Vp-p, 75Ω, sync negative |
| Colour difference | R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω |
| S-VIDEO IN: | Y: 1.0Vp-p, 75Ω |
| | C: 0.3Vp-p (burst), 75Ω |
| AUDIO IN CH-1/2 (XLR 3-pin female): | |
| LOW | –60dBu, 3kΩ, balanced |
| HIGH | +4dBu, 600Ω/10kΩ selectable, balanced |
| TIME CODE IN (BNC): | 0.5V to 18Vp-p, 10kΩ |

### Signal outputs

| | |
|---|---|
| VIDEO OUT 1 (BNC): | Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT 2 (BNC): | Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT 3 (BNC): | Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion |
| COMPONENT OUT 1 (12-pin male)*3: | |
| Luminance | 1.0Vp-p, 75Ω, sync negative |
| Colour difference | R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω |
| COMPONENT OUT 2 (BNC × 3)*3: | |
| Luminance | 1.0Vp-p, 75Ω, sync negative |
| Colour difference | R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω |
| AUDIO LINE OUT (XLR 3-pin male) CH-1/2: | |
| | +4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2: | |
| | +4dBu, 600Ω, balanced |
| U-matic DUB OUT (with an optional BKW-2030): | |
| | Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω |
| S-VIDEO OUT: | Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω |
| TIME CODE OUT (BNC): | 1.2Vp-p, 75Ω |

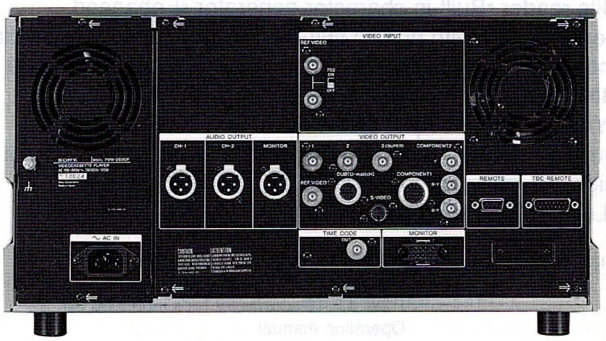
*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.
*2 Peak level +8dB above operational level.
*3 Video amplitude 100/0/100/0 colour bars.

# PVW-2650P

BETACAM SP 2000 PRO

## Player with DT

•Superior picture quality, inherent in the Betacam SP format •Dynamic Tracking (DT) provides broadcast quality noiseless playback within –1 to +3 times normal speed •More than 100 minutes of playback time using the L-size cassettes with Metal or Oxide tape •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with the Dolby C-type NR (Noise Reduction) system •Direct RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, BVU series U-matics) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation •Y/R-Y/B-Y component signal outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) output connector •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 25kg/55 lb 2 oz) •Low power consumption (130W)




| | | |
|---|---|---|
| Supplied accessories: | AC power cord<br>Remote control cable RCC-5G (9-pin)<br>PSW 4 × 16 screws for rack mounting (4)<br>Operation manual | |
| Optional accessories: | TBC Remote Controller UVR-60P<br>Component colour corrector BVX-10P<br>Control panel extension kit BKW-2010<br>U-matic DUB out kit BKW-2030<br>Control panel case BK-803<br>12-pin dubbing cable VDC-C5 (5m)<br>Remote control cable RCC-5G/10G/30G (5 m/10m/30m)<br>Rack mount kit RMM-110<br>S-Video cable SYC-2/5 (2m/5m) | |

## Specifications

**General**

| | |
|---|---|
| Type: | Player with DT |
| Video recording system: | Rotary 4 head helical scan<br>Luminance: FM recording<br>Chrominance: FM recording (CTDM recording) |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 104°F) |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 130W |
| Humidity: | Less than 80% (relative humidity) |
| Mass: | Approx. 25kg (55 lb 2 oz) |
| Dimensions: | 427(W) × 237(H) × 549(D)mm<br>($16^7/_8 \times 9^3/_8 \times 21^5/_8$ inches)<br>(including projecting parts) |
| Tape speed: | 10.15cm/s |
| Playback time: | More than 100min with BCT-90MLA<br>More than 35min with BCT-30MA |
| Fast Forward/Rewind time: | Less than 3min with BCT-90MLA |
| Search speed: | |
| SHUTTLE | 19 steps, still to 24 times normal speed, forward and reverse |
| JOG | Frame by frame, forward and reverse |
| Dynamic Tracking range: | –1 to +3 times normal speed |

| | Metal Particle Tape | Oxide Tape*1 |
|---|---|---|
| **Video performance** | | |
| Bandwidth: | | |
| Luminance (50% modulation) | 25Hz to 5.5MHz $^{+0.5}_{-4.0}$dB | 25Hz to 4.0MHz $^{+0.5}_{-6.0}$dB |
| Colour difference (50% modulation) | 25Hz to 2.0MHz $^{+0.5}_{-3.0}$dB | 25Hz to 1.5MHz $^{+0.5}_{-3.0}$dB |
| S/N ratio: | | |
| Luminance | More than 48dB | More than 46dB |
| Chrominance | | |
| AM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| PM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| Differential gain | Less than 3% | — |
| Differential phase | Less than 3° | — |
| K-factor (2T pulse) | Less than 2% | Less than 3% |
| Y/C delay | Less than 20ns | Less than 20ns |
| **Audio performance** | | |
| Frequency response (20dB below peak level)*2 | 50Hz to 15kHz $^{+1.5}_{-3.0}$dB | 50Hz to 15kHz ±3.0dB |
| S/N ratio (at peak level*2 weighed CCIR 468-3) | More than 68dB (Dolby NR ON) | More than 62dB (Dolby NR ON) |
| Distortion (at 1kHz) at operational level (4dBu) | Less than 1.0% | Less than 2.0% |
| Wow and flutter (DIN45507) | Less than 0.1% rms | Less than 0.1% rms |

**Signal inputs**

REF VIDEO IN (BNC): 1.0Vp-p, 75Ω

**Signal outputs**

VIDEO OUT 1 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 3 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT (12-pin male)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT OUT 2 (BNC × 3)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
AUDIO LINE OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
U-matic DUB OUT (with an optional BKW-2030): Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω
S-VIDEO OUT: Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT (BNC): 1.2Vp-p, 75Ω

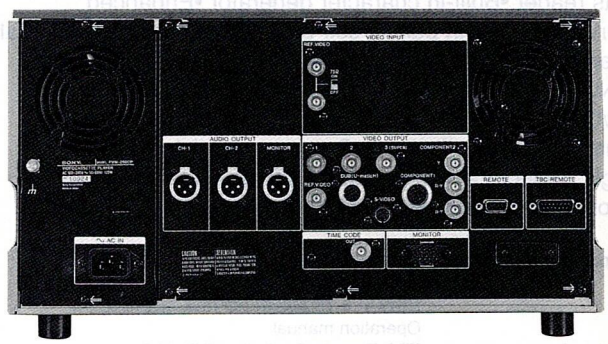
*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.
*2 Peak level $f$+8dB above operational level.
*3 Video amplitude 100/0/100/0 colour bars.

# PVW-2600P

BETACAM SP 2000 PRO

## Player

•Superior picture quality, inherent in the Betacam SP format •More than 100 minutes of playback time using the L-size Metal or Oxide cassettes •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with the Dolby C-type NR (Noise Reduction) system •RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, BVU series U-matics) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation •Y/R-Y/B-Y component signal outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) output connector •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 24.5kg/54 lb) •Low power consumption (120W)




| | |
|---|---|
| Supplied accessories: | AC power cord<br>Remote control cable RCC-5G (9-pin)<br>PSW 4 × 16 screws for rack mounting (4)<br>Operation manual |
| Optional accessories: | TBC Remote Controller UVR-60P<br>Component colour corrector BVX-10P<br>Control panel extention kit BKW-2010<br>U-matic DUB out kit BKW-2030<br>Control panel case BK-803<br>12-pin dubbing cable VDC-C5 (5m)<br>Remote control cable RCC-5G/10G/30G (5m/10m/30m)<br>Rack mount kit RMM-110<br>S-video cable SYC-2/5 (2m/5m) |

## Specifications

**General**

| | |
|---|---|
| Type: | Player |
| Video recording system: | Rotary 4 head helical scan<br>Luminance: FM recording<br>Chrominance: FM recording (CTDM recording) |
| Video Signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 120W |
| Humidity: | Less than 80% (relative humidity) |
| Mass: | Approx. 24.5kg (54 lb) |
| Dimensions: | 427(W) × 237(H) × 549(D)mm<br>(16 7/8 × 9 3/8 × 21 5/8 inches)<br>(including projecting parts) |
| Tape speed: | 10.15cm/s |
| Playback time: | More than 100min with BCT-90MLA<br>More than 35min with BCT-30MA |
| Fast Foward/Rewind time: | Less than 3min with BCT-90MLA |
| Search speed: | |
| SHUTTLE | 19 steps, still to 24 times normal speed, forward and reverse |
| JOG | Frame by frame, forward and reverse |

| | Metal Particle Tape | Oxide Tape*1 |
|---|---|---|
| **Video performance** | | |
| Bandwidth: | | |
| Luminance (50% modulation) | 25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB | 25Hz to 4.0MHz $^{+0.5}_{-6.0}$ dB |
| Colour difference (50% modulation) | 25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB | 25Hz to 1.5MHz $^{+0.5}_{-3.0}$ dB |
| S/N ratio: | | |
| Luminance | More than 48dB | More than 46dB |
| Chrominance | | |
| AM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| PM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| Differential gain | Less than 3% | — |
| Differential phase | Less than 3° | — |
| K-factor (2T pulse) | Less than 2% | Less than 3% |
| Y/C delay | Less than 20ns | Less than 20ns |
| **Audio performance** | | |
| Frequency response (20dB below peak level)*2 | 50Hz to 15kHz $^{+1.5}_{-3.0}$ dB | 50Hz to 15kHz ±3.0dB |
| S/N ratio (at peak level*2 weighed CCIR 468-3) | More than 68dB (Dolby NR ON) | More than 62dB (Dolby NR ON) |
| Distortion (at 1kHz) at operational level (4dBu) | Less than 1.0% | Less than 2.0% |
| Wow and flutter (DIN45507) | Less than 0.1% rms | Less than 0.1% rms |

**Signal inputs**

REF VIDEO IN (BNC): 1.0Vp-p, 75Ω

**Signal outputs**

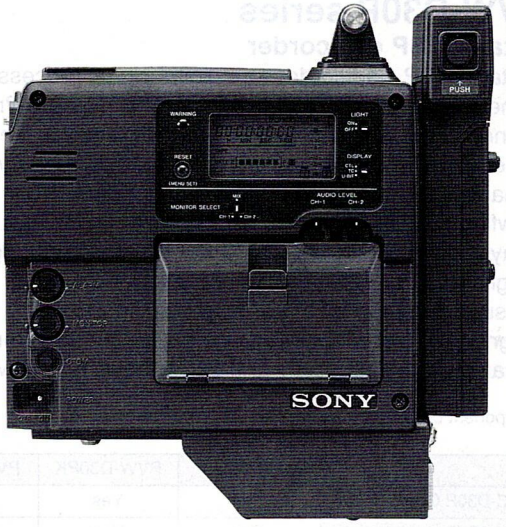
VIDEO OUT 1 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 3 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT (12-pin male)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT OUT 2 (BNC × 3)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
AUDIO LINE OUT (XLR 3-pin male) CH-1/2:
+4dBu, 600Ω, balanced
AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2:
+4dBu, 600Ω, balanced
U-matic DUB OUT (with an optional BKW-2030):
Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω
S-VIDEO OUT: Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT (BNC): 1.2Vp-p, 75Ω

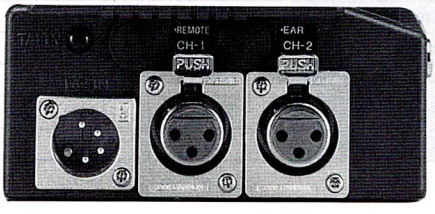
*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.
*2 Peak level +8dB above operational level.
*3 Video amplitude 100/0/100/0 colour bars.

# PVV-3P

## Dockable recorder unit

•Superior picture quality, inherit in the Betacam SP format •Compact and light-weight design •Low power consumption •Directly connected with DXC-637P/D30P/637P/327BP via the Pro 50-pin connector •Supplied with 20-pin connector for full colour playback in field through the optional VA-300P and VA-500P •More than 35 minutes of recording time using the S-size cassette (Metal particle tape only) •Two longitudinal audio channels with the Dolby C-type Noise Reduction system •Luminance or CTDM viewfinder •Full range of control provided (Fast forward/Rewind/Play/Stop/Eject) •Record review function •Built-in LTC/VITC/User Bits generator and LTC reader with exteranl time code lock capability •Frame accurate back space editing without time code discontinuity at the transition points •8-digit LCD display •Real time and date recording function •Built-in loud speaker •Digital hours meter •Built-in microphone external power supply (+48V, CH-1/2) •Built-in self diagnostics with character display on TV monitor •Enhanced serviceability




| | |
|---|---|
| Supplied accessories: | Shoulder belt |
| | Screws M4 × 12 (2) |
| | M4 × 6 (2) |
| | Operation manual |
| | Handle |
| | Lithium battery(CR2025) |
| Optional accessories: | NiCd Rechargeable Battery NP-1B, BA-90A |
| | Battery case (for BP-90A) DC-500 |
| | Battery case (for NP-1B) DC-520 |
| | Battery charger BC-1WDCE |
| | Battery charger BC-410CE |
| | Camera adaptor CMA-8ACE |
| | Camera adaptor (for BVP series) CA-514 |
| | Power cable (for CMA-8ACE) CCQX-3 |

## Specifications

**General**

| | |
|---|---|
| Type: | Dockable Recorder Unit |
| Operating temperature: | 0 to 40˚C (32 to 104˚F) |
| Storage temperature: | -20 to 60˚C (-4 to 140˚F) |
| Power requirements: | DC 12V $^{+5.0}_{-1.0}$ V |
| Power consumption: | 10W |
| Humidity: | Less than 85% (relative humidity) |
| Mass: | Approx. 2.8kg (6 lb 2 oz) |
| Tape speed: | 10.15cm/s |
| REC/Playback time: | More than 35min with BCT-30MA/UVWT-30MA |
| Fast Forward time: | Less than 7.5min with BCT-30MA/UVWT-30MA |
| Rewind time: | Less than 5.5min with BCT-30MA/UVWT-30MA |
| Continuous operating time: | Approx. 60min with NP-1B (PVV-3P and DXC-637P) |

**Video performance (Metal Particle Tape only)*1**

| | |
|---|---|
| Bandwidth: | Luminance(50% modulation): 25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB |
| | Colour difference (50% modulation): 25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB |
| S/N ratio: | Luminance(Component IN/OUT): More than 48dB |
| | Colour difference: R-Y; More than 48dB |
| | B-Y; More than 48dB |
| K-pulse(2T): | Less than 2% |
| Y/C delay: | Less than 20ns |

**Audio performance (Metal Particle Tape only)*1**

| | |
|---|---|
| Frequency response: | 50Hz to 15kHz $^{+1.5}_{-3.0}$ dB |
| S/N ratio (at 3% distortion level): | More than 62dB (CCIR 468-3, at peak level*3) |
| Distortion T.H.D. (at 1kHz reference level): | Less than 1.5% |
| Wow and flutter (DIN weighted): | Less than 0.15%rms |

**Signal inputs/outputs**

| | |
|---|---|
| VIDEO (from the camera head, Pro 50-pin)*2: | Luminance:1.0Vp-p, 1kΩ |
| | Colour difference: B-Y/R-Y; 0.7Vp-p, 1kΩ |
| GEN LOCK VIDEO IN (BNC): | 1.0Vp-p, 75Ω |
| AUDIO IN CH-1/2 (XLR 3-pin female): | -60dBu/+4dBu selectable, high impedance, balanced |
| TIME CODE IN (BNC): | 0.5V to 18Vp-p, 10kΩ |
| ENCODED VIDEO OUT (Camera Video Out, BNC): | 1.0Vp-p, 75Ω |
| TIME CODE OUT(BNC): | 1.0Vp-p, 75Ω |

**Others**

| | |
|---|---|
| EARPHONE OUT: | Mini jack |
| PLAYBACK ADAPTOR: | 20-pin |
| REMOTE: | Stereo Mini Jack |

*1 The specifications of "video/audio performace" were measured by playing back material on a standard PVW series that had been recorded on a PVV-3P.
*2 Video amplitude 100/0/100/0 colour bars
*3 Peak level +8dB above operational level

# PVW-D30P series

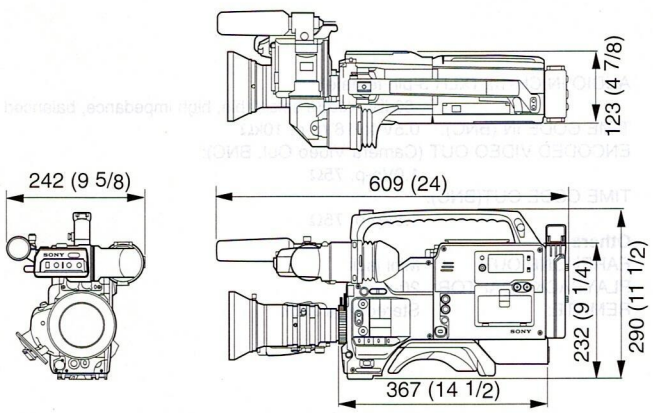
## Betacam SP camcorder

•Betacam SP Camcorder with digital signal processing camera: PVV-3P docked with DXC-D30P via the Pro 50-pin connector •Status information and messages of the PVV-3P (time code, recording audio level, remaining battery power, remaining tape time, etc.) can be superimposed on the viewfinder •Time code superimposed during playback •Playback capability with VA-300P •Compact and light weight 7.2kg (15 lb 14 oz) in operation •Low power consumption: approx. 24 W •Lightweight rugged magnesium diecast body •Large carrying handle for enhanced transportability and easier handling in low angle

Component chart

| | PVW-D30PF | PVW-D30PK | PVW-D30PL |
|---|---|---|---|
| DXC-D30P Camera head | Yes | Yes | Yes |
| PVV-3P Recorder | Yes | Yes | Yes |
| Handle for PVW-D30 | Yes | Yes | Yes |
| DFX-701CE Viewfinder | Yes | Yes | Yes |
| External microphone | Yes | Yes | Yes |
| Shoulder strap | Yes | Yes | Yes |
| VCT-U14 Tripod adaptor | Yes | Yes | Yes |
| VCL-916BYA Zoom lens | Yes | Yes | Option |
| LC-421 Carrying case | Yes | Option | Option |

Dimensions




Unit: mm (inches)

# PVW-637P series

## Betacam SP camcorder

•Coupled with PVV-3P and DXC-637P via the Pro 50-pin connector for high quality component acquisitions •Compact and lightweight: approx. 8.2Kg (18 lb 1 oz)(Both including the battery, viewfinder, microphone, zoom lens) •Low power consumption: approx. 24W with viewfinder •Lightweight rugged magnesium diecast body •Large carrying handle for enhanced transportability and easier handling in low angle.

**Component Chart**

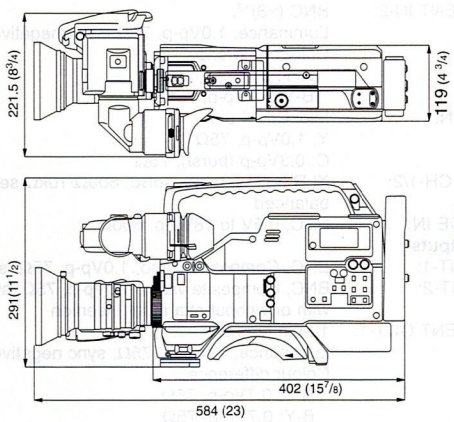
| Composition \ Model | PVW-637PK | PVW-637PL |
|---|---|---|
| Camera head DXC-637P | Yes | Yes |
| PVV-3P | Yes | Yes |
| Carrying handle for camcorder | Yes | Yes |
| Zoom lens VCL-916BYA | Yes | option |
| carrying case LC-421 | Yes | Yes |
| External microphone (Incl. Mic.Cable) | Yes | Yes |
| Viewfinder DXC-601/CE | Yes | Yes |
| Tripod adaptor VCT-U14 | Yes | Yes |

## Product configuration

**PVW-637PK**

**PVW-637PL**

Dimensions



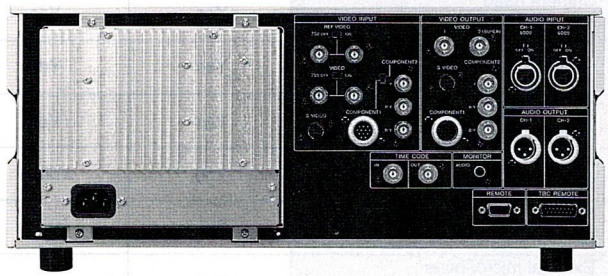

Unit: mm (inches)

* Please see pages for the PVV-3P and the DXC-637P for their detailed information.

# UVW-1800P

## Editing recorder/player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of recording/playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Frame accurate editing: assemble and insert (video, audio CH-1, audio CH-2 and time code) editing capability when controlled from optional RS-422A equipped editing controller unit •Dedicated longitudinal time code track •Built-in Time Base Corrector with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) generator and reader •RS-422A 9-pin interface •Y/R-Y/B-Y component signal input and output via BNC or 12-pin DUB connectors •S-video (Y/C separate) input/output connectors •Optional TBC Remote Control Unit UVR-60P •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTRstatus, time code, self-diagnostic message, setup menu, and so on •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 19kg), 19-inch rack mountable and low power consumption (85W)



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Remote control cable RCC-5G (9-pin)<br>Operation manual |
| Optional accessories: | TBC Remote controller UVR-60P<br>Component colour corrector BVX-10P<br>Remote control cable RCC-5G/10G/30G (5m/10m/30m)<br>12-pin dubbing cable VDC-C5 (5m)<br>S-video cable SYC-2/5 (2m/5m)<br>Remote control unit SVRM-100A<br>Rack mount unit RMM-130 |

## Specifications

**General**

| | |
|---|---|
| Type: | Editing recorder/player |
| Video recording system: | Rotary 4 head helical scan<br>Luminance: FM recording<br>Chrominance: FM recording (CTDM recording) |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 85W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Humidity: | Less than 80% (relative humidity) |
| Dimensions: | 427(W) × 193(H) × 474(D)mm<br>($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches) |
| Mass: | Approx. 19kg (41 lb 14 oz) |
| Tape speed: | 101.5mm/s |
| Recording/playback time: | More than 100min with UVWT-90MLA<br>More than 35min with UVWT-30MA |
| Fast forward time: | Less than 3min with UVWT-90MLA |
| Rewind time: | Less than 3min with UVWT-90MLA |
| Search speed (with optional SVRM-100A)*1: | Shuttle: 15 steps, still to 16 times normal speed, forward and reverse<br>Jog: Frame by frame, forward and reverse |

**Video performance (Metal particle tape)**

| | |
|---|---|
| Bandwidth (50% modulation): | Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB<br>Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB |
| S/N ratio: | Luminance (Component in/out): More than 46dB<br>Chrominance (1.0MHz LPF):<br>AM; More than 48dB<br>PM; More than 48dB |
| K-factor (2T pulse): | Less than 3% |
| Y/C delay: | Less than 30ns |

**Audio performance (Metal particle tape)**

| | |
|---|---|
| Frequency responce: | 50Hz to 15kHz $^{+2.0}_{-3.0}$ dB<br>(20dB below peak level)*2 |
| S/N ratio: | More than 66dB<br>(at peak level weighed CCIR468-3)*2 |
| Distortion: | Less than 1.5%<br>(at 1kHz/at operational level 4dBu) |
| Wow and flutter: | Less than 0.15% rms (DIN 45507) |

**Signal inputs**

| | |
|---|---|
| REF VIDEO IN: | BNC, 1.0Vp-p, 75Ω |
| VIDEO IN: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| COMPONENT IN-1: | 12-pin male*3,<br>Luminance: 1.0Vp-p, 75Ω, sync negative<br>Colour difference:<br>R-Y; 0.7Vp-p, 75Ω<br>B-Y; 0.7Vp-p, 75Ω |
| COMPONENT IN-2: | BNC (×3)*3,<br>Luminance: 1.0Vp-p, 75Ω, sync negative<br>Colour difference:<br>R-Y; 0.7Vp-p, 75Ω<br>B-Y; 0.7Vp-p, 75Ω |
| S-VIDEO IN: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |
| AUDIO IN CH-1/2: | XLR 3-pin female, 4dBu, 600Ω/10kΩ selectable balanced |
| TIME CODE IN: | BNC, 0.5V to 18Vp-p, 600Ω |

**Signal outputs**

| | |
|---|---|
| VIDEO OUT-1: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT-2: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative, with or without character insertion |
| COMPONENT OUT-1: | 12-pin female*3,<br>Luminance: 1.0Vp-p, 75Ω, sync negative<br>Colour difference:<br>R-Y; 0.7Vp-p, 75Ω<br>B-Y; 0.7Vp-p, 75Ω |
| COMPONENT OUT-2: | BNC (×3)*3,<br>Luminance: 1.0Vp-p, 75Ω, sync negative<br>Colour difference:<br>R-Y; 0.7Vp-p, 75Ω<br>B-Y; 0.7Vp-p, 75Ω |
| AUDIO LINE OUT CH-1/2: | XLR 3-pin, male, 4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT CH-1/2: | Phono, –6dBu |
| S-VIDEO OUT: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |
| TIME CODE OUT: | BNC, 2.2Vp-p, 600Ω |

**Others**

| | |
|---|---|
| REMOTE IN/OUT: | 9-pin female |
| TBC REMOTE: | 15-pin male |
| CONTROL/S: | Mini jack |
| HEADPHONES: | JM-60 headphone stereo jack |

**Processor adjustment range (with optional UVR-60P)**

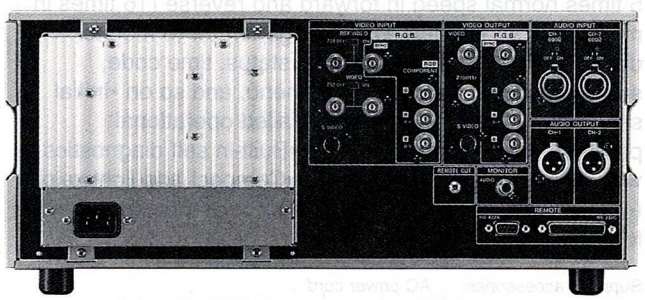
| | |
|---|---|
| Video level: | ±3dB |
| Chroma level: | ±3dB |
| Black level: | 0 to 100mV |
| System SC phase: | 360°p-p*4 |
| System sync phase: | –1 to 3μs*5 |
| Y/C delay: | ±100ns |

*1 Without SVRM-100A attached, search speed is 16 times forward and reverse.
*2 Peak level +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars
*4 With or without UVR-60P attached
*5 Without UVR-60P attached: ±300ns

# UVW-1700GP

## CG frame recorder

•Especially designed for CG application •Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of recording/playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Dedicated longitudinal time code track •Built-in Time Base Stabilizer with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) generator and reader •RS-232C D-sub 25-pin interface /RS-422A 9-pin interface for external computer operation (switchable) •Frame accurate insert editing (video only) capability when controlled from optional RS-422A or RS-232C equipped editing controller •Y/R-Y/B-Y component signal inputs and outputs via BNC connectors are switchable to RGB input/output connector •SYNC IN/OUT connectors •S-video (Y/C separate) input/output connectors • Trigger remote out for video printers (stereo mini jack) •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic message, setup menu, and so on •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 19kg), 19-inch rack mountable and low power consumption (85W)




| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operation manual<br>RS-232 Protocol manual |
| Optional accessories: | Component colour corrector BVX-10P<br>Remote control unit SVRM-100A<br>Rack mount unit RMM-130 |

## Specifications

**General**

| | |
|---|---|
| Type: | Reorder/player |
| Video recording system: | Rotary 4 head helical scan<br>Luminance: FM recording<br>Chrominance: FM recording (CTDM recording) |
| Video signal system: | CCIR monochroma/PAL colour |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 85W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 50°C (–4 to 140°F) |
| Humidity: | Less than 80% (relative humidity) |
| Dimensions: | 427(W) × 193(H) × 474(D)mm<br>($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches) |
| Mass: | Approx. 19kg (41 lb 14 oz) |
| Tape speed: | 101.5mm/s |
| Recording/playback time: | More than 100min with UVWT-90MLA<br>More than 35min with UVWT-30MA |
| Fast forward time: | Less than 3min with UVWT-90MLA |
| Rewind time: | Less than 3min with UVWT-90MLA |
| Search speed (with optional SVRM-100A)*1 | Shuttle: 15 steps, still to 16 times normal speed, forward and reverse<br>Jog: Frame by frame, forward and reverse |

**Video performance (Metal particle tape)**

| | |
|---|---|
| Bandwidth (50% modulation): | (Component In/Out)<br>Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$dB<br>Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$dB |
| S/N ratio: | Luminance (Component in/out): More than 46dB<br>Chrominance (1.0MHz LPF):<br>AM; More than 48dB<br>PM; More than 48dB |
| K-factor (2T pulse): | Less than 3% |
| Y/C delay: | Less than +30ns |

**Audio performance (Metal particle tape)**

| | |
|---|---|
| Frequency response: | 50Hz to 15kHz $^{+2.0}_{-3.0}$ dB<br>(20dB below peak level)*2 |
| S/N ratio: | More than 66dB<br>(at peak level massed CCIR468-3)*2 |
| Distortion: | Less than 1.5%<br>(at 1kHz/at operational level 4dBu) |
| Wow and flutter: | Less than 0.15% rms (DIN 45507) |

**Signal inputs**

| | |
|---|---|
| REF VIDEO/RGB SYNC IN: | BNC, 1.0Vp-p, 75Ω (0.3 to 5Vp-p at RGB composite sync, 75Ω) |
| VIDEO IN: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| RGB/COMPONENT IN: | BNC (×3)*3,<br>Y/Sync on G:0.7Vp-p, 75Ω, sync negative<br>R-Y/R: 0.7Vp-p, 75Ω<br>B-Y/B: 0.7Vp-p, 75Ω |
| S-VIDEO IN: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |
| AUDIO IN CH-1/2: | XLR 3-pin female, 4dBu, 600Ω/10kΩ selectable, balanced |

**Signal outputs**

| | |
|---|---|
| VIDEO OUT-1: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT-2: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative, with or without character insertion |
| RGB/COMPONENT OUT: | BNC (×3)*3,<br>Y/Sync on G: 1.0Vp-p, 75Ω, sync negative<br>R-Y/R: 0.7Vp-p, 75Ω<br>B-Y/B: 0.7Vp-p, 75Ω |
| AUDIO LINE OUT CH-1/2: | XLR 3-pin, male 4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT CH-1/2: | Phono, –6dBu |
| S-VIDEO OUT: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |
| SYNC OUT: | 2Vp-p, 75Ω, negative (at RGB composite sync) |

**Others**

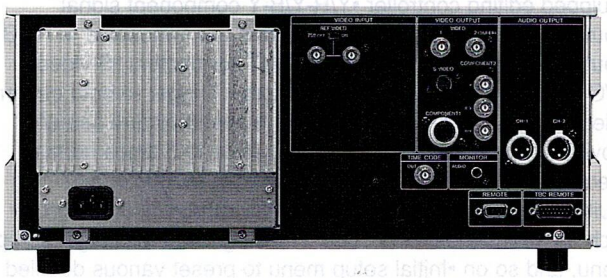
| | |
|---|---|
| REMOTE: | RS-232C 25-pin female/RS-422A 9-pin (switchable) |
| REMOTE OUT: | Mini jack Low active (open connector) |
| CONTROL-S: | Mini jack |
| HEADPHONES: | JM-60 headphone stereo jack |

*1 Without SVRM-100A attached, search speed is 16 times forward and reverse.
*2 Peak level +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars.

# UVW-1600P

## Editing player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Dedicated longitudinal time code track •Built-in Time Base Corrector with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) reader •RS-422A 9-pin interface •Y/R-Y/B-Y component signal output via BNC or 12-pin DUB connector •S-video (Y/C separate) output connector •Optional TBC Remote Control Unit UVR-60P •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic message, setup menu, and so on •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 18kg), 19-inch rack mountable and low power consumption (65W)



| | |
|---|---|
| Supplied accessories: | AC power cord |
| | Remote control cable RCC-5G (9-pin) |
| | Operation manual |
| Optional accessories: | TBC Remote controller UVR-60P |
| | Component colour corrector BVX-10P |
| | Remote control cable RCC-5G/10G/30G (5m/10m/30m) |
| | 12-pin dubbing cable VDC-C5 (5m) |
| | S-video cable SYC-2/5 (2m/5m) |
| | Remote control unit SVRM-100A |
| | Rack mount unit RMM-130 |

## Specifications

**General**

| | |
|---|---|
| Type: | Editing player |
| Video recording system: | Rotary 4 head helical scan |
| | Luminance: FM recording |
| | Chrominance: FM recording (CTDM recording) |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 65W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Humidity: | Less than 80% (relative humidity) |
| Dimensions: | 427(W) × 193(H) × 474(D)mm |
| | ($16^{7}/_{8} \times 7^{5}/_{8} \times 18^{3}/_{4}$ inches) |
| Mass: | Approx. 18kg (39 lb 10 oz) |
| Tape speed: | 101.5mm/s |
| Playback time: | More than 100min with UVWT-90MLA |
| | More than 35min with UVWT-30MA |
| Fast forward time: | Less than 3min with UVWT-90MLA |
| Rewind time: | Less than 3min with UVWT-90MLA |
| Search speed (with optional SVRM-100A)*1: | |
| | Shuttle: 15 steps, still to 16 times normal speed, forward and reverse |
| | Jog: Frame by frame, forward and reverse |

**Video performance (Metal particle tape)**

| | |
|---|---|
| Bandwidth (50% modulation): | |
| | Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB |
| | Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB |
| S/N ratio: | Luminance (Component out): More than 46dB |
| | Chrominance (1.0MHz LPF): |
| | AM; More than 48dB |
| | PM; More than 48dB |
| K-factor (2T pulse): | Less than 3% |
| Y/C delay: | Less than 30ns |

**Audio performance (Metal particle tape)**

| | |
|---|---|
| Frequency responce: | 50Hz to 15kHz +2.0–3.0dB |
| | (20dB below peak level)*2 |
| S/N ratio: | More than 66dB |
| | (at peak level weighed CCIR468-3)*2 |
| Distortion: | Less than 1.5% |
| | (at 1kHz/at operational level 4dBu) |
| Wow and flutter: | Less than 0.15% rms (DIN45507) |

**Signal inputs**

| | |
|---|---|
| REF VIDEO IN: | BNC, 1.0Vp-p, 75Ω |

**Signal outputs**

| | |
|---|---|
| VIDEO OUT-1: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT-2: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion |
| COMPONENT OUT-1: | 12-pin female*3, |
| | Luminance: 1.0Vp-p, 75Ω, sync negative |
| | Colour difference: |
| | R-Y; 0.7Vp-p, 75Ω |
| | B-Y; 0.7Vp-p, 75Ω |
| COMPONENT OUT-2: | BNC (×3)*3, |
| | Luminance: 1.0Vp-p, 75Ω, sync negative |
| | Colour difference: |
| | R-Y; 0.7Vp-p, 75Ω |
| | B-Y; 0.7Vp-p, 75Ω |
| AUDIO LINE OUT CH-1/2: | XLR 3-pin, male, 4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT CH-1/2: | |
| | Phono, –6dBu |
| S-VIDEO OUT: | Mini DIN 4-pin, |
| | Y: 1.0Vp-p, 75Ω |
| | C: 0.3Vp-p (burst), 75Ω |
| TIME CODE OUT: | BNC, 2.2Vp-p, 600Ω |

**Others**

| | |
|---|---|
| REMOTE IN/OUT: | 9-pin female |
| TBC REMOTE: | 15-pin male |
| CONTROL/S: | Mini jack |
| HEADPHONES: | JM-60 headphone stereo jack |

**Processor adjustment range (with optional UVR-60P)**

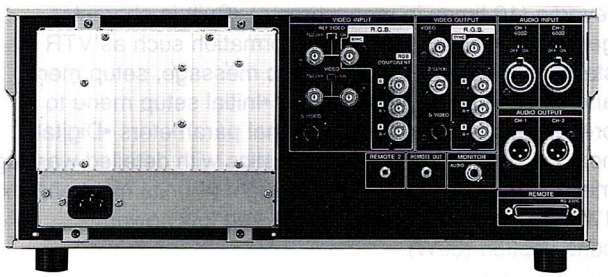
| | |
|---|---|
| Video level: | ±3dB |
| Chroma level: | ±3dB |
| Black level: | 0 to 100mV |
| System SC phase: | 360°p-p*4 |
| System sync phase: | –1 to 3µs*5 |
| Y/C delay: | ±100ns |

*1 Without SVRM-100A attached, search speed is 16 times forward and reverse.
*2 Peak level + 8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars
*4 With or without UVR-60P attached
*5 Without UVR-60P attached: ±300ns

# UVW-1400AP

## Recorder/player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of recording/playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Dedicated longitudinal time code track •Built-in Time Base Stabilizer with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) generator and reader •25-pin remote control interface complied with RS-232C interface for external computer operation •Y/R-Y/B-Y component signal inputs and outputs via BNC connectors are switchable to RGB input/output connector •S-video (Y/C separate) input/output connectors •Back space editing for smooth transitions between scenes with optional remote controller •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic message, setup menu, and so on •Auto repeat function •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 19kg), 19-inch rack mountable and low power consumption (80W)




| | |
|---|---|
| Supplied accessories: | AC power cord |
| | Operation manual |
| Optional accessories: | Component colour corrector BVX-10P |
| | S-video cable SYC-2/5 (2m/5m) |
| | Remote control unit SVRM-100A |
| | Rack mount unit RMM-130 |

## Specifications

**General**

| | |
|---|---|
| Type: | Recorder/player |
| Video recording system: | Rotary 4 head helical scan |
| | Luminance: FM recording |
| | Chrominance: FM recording (CTDM recording) |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 85W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Humidity: | Less than 80% (relative humidity) |
| Dimensions: | 427(W) × 193(H) × 474(D)mm |
| | ($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches) |
| Mass: | Approx. 19kg (41 lb 14 oz) |
| Tape speed: | 101.5mm/s |
| Recording/playback time: | |
| | More than 100min with UVWT-90MLA |
| | More than 35min with UVWT-30MA |
| Fast forward time: | Less than 3min with UVWT-90MLA |
| Rewind time: | Less than 3min with UVWT-90MLA |
| Search speed (with optional SVRM-100A)*1: | |
| | Shuttle: 15 steps, still to 16 times normal speed, forward and reverse |
| | Jog: Frame by frame, forward and reverse |

**Video performance (Metal particle tape)**

| | |
|---|---|
| Bandwidth (50% modulation): | |
| | Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB |
| | Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB |
| S/N ratio: | Luminance (Component in/out): More than 46dB |
| | Chrominance (1.0MHz LPF): |
| | AM; More than 48dB |
| | PM; More than 48dB |
| K-factor (2T pulse): | Less than 3% |
| Y/C delay: | Less than 30ns |

**Audio performance (Metal particle tape)**

| | |
|---|---|
| Frequency responce: | 50Hz to 15kHz $^{+2.0}_{-3.0}$ dB |
| | (20dB below peak level)*2 |
| S/N ratio: | More than 66dB |
| | (at peak level weighed CCIR468-3)*2 |
| Distortion: | Less than 1.5% |
| | (at 1kHz/at operational level 4dBu) |
| Wow and flutter: | Less than 0.15% rms (DIN 45507) |

**Signal inputs**

| | |
|---|---|
| REF VIDEO IN: | BNC, 1.0Vp-p, 75Ω |
| VIDEO IN: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| RGB/COMPONENT IN: | BNC (×3)*3, |
| | Y/Sync on G:1.0Vp-p, 75Ω, sync negative |
| | R-Y/R: 0.7Vp-p, 75Ω |
| | B-Y/B: 0.7Vp-p, 75Ω |
| S-VIDEO IN: | Mini DIN 4-pin, |
| | Y: 1.0Vp-p, 75Ω |
| | C: 0.3Vp-p (burst), 75Ω |
| AUDIO IN CH-1/2: | XLR 3-pin female, 4dBu, 600Ω/10kΩ selectable balanced |

**Signal outputs**

| | |
|---|---|
| VIDEO OUT-1: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT-2: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion |
| RGB/COMPONENT OUT: | BNC (×3)*3, |
| | Y/Sync on G: 1.0Vp-p, 75Ω, sync negative |
| | R-Y/R: 0.7Vp-p, 75Ω |
| | B-Y/B: 0.7Vp-p, 75Ω |
| AUDIO LINE OUT CH-1/2: | XLR 3-pin, male, 4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT CH-1/2: | |
| | Phono, –6dBu |
| S-VIDEO OUT: | Mini DIN 4-pin, |
| | Y: 1.0Vp-p, 75Ω |
| | C: 0.3Vp-p (burst), 75Ω |

**Others**

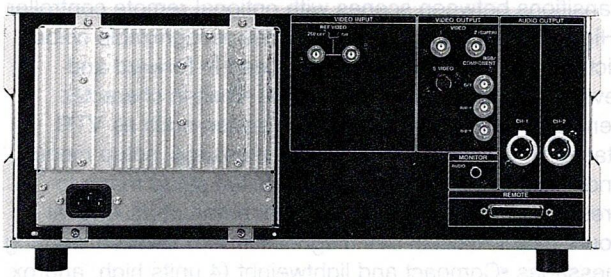
| | |
|---|---|
| REMOTE IN/OUT: | 25-pin female complied with RS-232C |
| CONTROL/S: | Mini jack |
| HEADPHONES: | JM-60 headphone stereo jack |

*1 Without SVRM-100A attached, search speed is 16 times forward and reverse.
*2 Peak level = +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars

# UVW-1200P

## Player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system •Dedicated longitudinal time code track •Built-in Time Base Stabilizer with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) reader •25-pin remote control interface complied with RS-232C interface for external computer operation •Y/R-Y/B-Y component signal outputs via BNC connectors are switchable to RGB output connector •S-video (Y/C separate) output connector •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic message, setup menu, and so on •Auto repeat function •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 17.5kg), 19-inch rack mountable and low power consumption (60W)




| | |
|---|---|
| Supplied accessories: | AC power cord |
| | Operation manual |
| Optional accessories: | Component colour corrector BVX-10P |
| | S-video cable SYC-2/5 (2m/5m) |
| | Remote control unit SVRM-100A |
| | Rack mount unit RMM-130 |

## Specifications

**General**

| | |
|---|---|
| Type: | Player |
| Video recording system: | Rotary 4 head helical scan |
| | Luminance: FM recording |
| | Chrominance: FM recording (CTDM recording) |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 63W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Humidity: | Less than 80% (relative humidity) |
| Dimensions: | 427(W) × 193(H) × 474(D)mm |
| | ($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches) |
| Mass: | Approx. 17.5kg (38 lb 9 oz) |
| Tape speed: | 101.5mm/s |
| Playback time: | More than 100min with UVWT-90MLA |
| | More than 35min with UVWT-30MA |
| Fast forward time: | Less than 3min with UVWT-90MLA |
| Rewind time: | Less than 3min with UVWT-90MLA |
| Search speed (with optional SVRM-100A)*1: | |
| | Shuttle: 15 steps, still to 16 times normal speed, forward and reverse |
| | Jog: Frame by frame, forward and reverse |

**Video performance (Metal particle tape)**

| | |
|---|---|
| Bandwidth (50% modulation): | |
| | Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB |
| | Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB |
| S/N ratio: | Luminance (Component out): More than 46dB |
| | Chrominance (1.0MHz LPF): |
| | AM; More than 48dB |
| | PM; More than 48dB |
| K-factor (2T pulse): | Less than 3% |
| Y/C delay: | Less than 30ns |

**Audio performance (Metal particle tape)**

| | |
|---|---|
| Frequency responce: | 50Hz to 15kHz $^{+2.0}_{-3.0}$ dB |
| | (20dB below peak level)*2 |
| S/N ratio: | More than 66dB |
| | (at peak level weighed CCIR468-3)*2 |
| Distortion: | Less than 1.5% |
| | (at 1kHz/at operational level 4dBu) |
| Wow and flutter: | Less than 0.15% rms (DIN 45507) |

**Signal inputs**

| | |
|---|---|
| REF VIDEO IN: | BNC, 1.0Vp-p, 75Ω |

**Signal outputs**

| | |
|---|---|
| VIDEO OUT-1: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT-2: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion |
| RGB/COMPONENT OUT: | BNC (×3)*3, |
| | Y/Sync on G: 1.0Vp-p, 75Ω, sync negative |
| | R-Y/R: 0.7Vp-p, 75Ω |
| | B-Y/B: 0.7Vp-p, 75Ω |
| AUDIO LINE OUT CH-1/2: | XLR 3-pin, male, 4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT CH-1/2: | |
| | Phono, –6dBu |
| S-VIDEO OUT: | Mini DIN 4-pin, |
| | Y: 1.0Vp-p, 75Ω |
| | C: 0.3Vp-p (burst), 75Ω |

**Others**

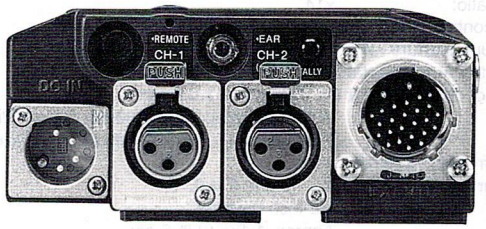
| | |
|---|---|
| REMOTE IN/OUT: | 25-pin female complied with RS-232C |
| CONTROL/S: | Mini jack |
| HEADPHONES: | JM-60 headphone stereo jack |

*1 Without SVRM-100A attached, search speed is 16 times forward and reverse.
*2 Peak level = +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars

# UVW-100BP

## Betacam SP One-Piece Camcorder

•High performance one-piece camcorder •Incorporates three 1/2-inch IT Power HAD sensors •High quality Betacam SP component recording format •High sensitivity of F11.0 at 2000 lx, high signal to noise ratio of 58dB, high horizontal resolution of 700TV lines •Compact and light weight approx. 7.3kg including the viewfinder, battery, cassette and lens •Low power consumption of 20W •More than 35 minutes of recording time using the S-size metal Betacam SP cassette •Programmable gain up (0 to 18dB) •ATW (Auto Tracing White Balance) •Total Level Control System provides optimum adjustments for any lighting conditions: AGC (Automatic Gain Control), AE (Auto Exposure) and Intelligent Auto Iris •Built-in safety zone and centre marker generator in the viewfinder •Two memories for white balance value •×14 zoom lens: VCL-714BX (supplied with the UVW-100BPF/BPK) •1/2-inch bayonet mount •Variable electronic shutter •Clear Scan function (50.0 to 201.5Hz) •Camera gen-lock and Time Code gen-lock capability •The 26-pin interface provides component, composite and Y/C video signal to an external VTR for simultaneous recording •Built-in time code generator and reader •Real Time/Date recording function •Two longitudinal audio channels with the Dolby C-Type NR (Noise Reduction) system •Recording review and back space editing function •Colour playback in the field with the optional VA-300P Playback Adaptor •8-digit LCD display •Bargraph meter for audio level and battery status •Built-in earspeaker •External microphone power supply (+48V, Ch-1/2)




Optional accessories:
- Battery pack NP-1B, BP-90A
- Battery charger BC-1WDCE, BC-410CE
- Battery adaptor DC-520, DC-500
- AC adaptor AC-550CE
- AC power adaptor CMA-8ACE
- Playback adaptor VA-300P
- Remote controller RM-81
- Carrying case LC-421
- Rain cover LCR-1
- 26/26-pin cable CCZ-A cable
- 14/26-pin cable CCZQ-A cable
- Tripod adaptor VCT-U14

## Specifications

### General

| | |
|---|---|
| Type: | One-piece camcorder |
| Power requirements: | DC 12V $^{+5.0}_{-1.0}$ V |
| Power consumption: | 20W (at 12V, without viewfinder) |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Humidity: | Less than 85% (relative humidity) |
| Mass: | 7.3kg (fully equipped with VF/lens/battery/MIC) |
| Tape speed: | 101.5mm/s |
| Playback/recording time: | More than 35min with UVWT-30MA |
| Fast forward time: | Less than 7.5min with UVWT-30MA |
| Rewind time: | Less than 5.5min with UVWT-30MA |

### Camera Head

| | |
|---|---|
| Image device: | Three 1/2-inch IT Power HAD CCD sensors |
| Optics: | F1.4 medium index prism system |
| Picture element: | Total: 795 × 596 (H × V)<br>Effective: 752 × 582 (H × V) |
| Built-in filters: | 1: 3200K<br>2: 5600K + 1/16ND<br>3: 5600K |
| Lens mount: | 1/2-inch bayonet |
| Video signal aystem: | PAL (colour) |
| Horizontal resolution: | 700TV lines |
| Minimum illumination: | 4.0 lx with F1.4 +18dB |
| Sensitivity: | F11.0 at 2000 lx |
| Gain selection: | 0dB<br>MID (1dB to 17dB in 1dB steps)<br>HIGH (2dB to 18dB in 1dB steps)<br>(MID < HIGH)<br>0dB to 18dB variable (AGC) |
| Shutter speed selection: | OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000s |
| Clear Scan range: | 50.0Hz to 201.5 Hz |
| S/N ratio: | 58dB |
| Registration: | 0.05% (all zone, without lens) |
| Geometric distortion: | Below measurable level |
| Camera: | VBS: 1.0Vp-p, sync negative |
| 26-pin connector: | VBS: 1.0Vp-p, sync negative<br>Y: 1.0Vp-p, 75Ω, sync negative<br>R-Y/B-Y: 0.525Vp-p<br>Y/C: {Y}; 1.0Vp-p, 75Ω, sync negative<br>{C}; 0.3Vp-p (burst level) |

### VTR Portion

Video

| | |
|---|---|
| Recording system: | Rotary 4-head helical scan system<br>R-Y/B-Y: FM recording (CTDM)<br>Y: FM recording |
| Time Code IN (BNC): | 0.5V to 5Vp-p, 10kΩ |
| Time Code OUT (BNC): | 1.0Vp-p, 75Ω |

Audio

| | |
|---|---|
| Input: | MIC: –60dBu, 3kΩ, balanced<br>Line: +4dBu, 10kΩ, balanced |

Video Performance

| | |
|---|---|
| Bandwidth: | Y: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB<br>R-Y/B-Y: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB |
| S/N ratio: | Y (Component IN/OUT):<br>More than 46dB<br>R-Y/B-Y: More than 47dB |
| Distortion: | K-factor: Less than 3%<br>Y/C delay: Less than 30ns |

Audio Performance

| | |
|---|---|
| Frequency response (20dB below peak level): | 50Hz to 12.5kHz $^{+2.0}_{-3.0}$ dB |
| S/N ratio (at peak level* CCIR 468-3): | More than 60dB |
| Distortion (at 1kHz, operational level (+4dBu)): | Less than 1.5% |
| Wow and flutter: | Less than 0.18%rms |

# 1-2 UVW series Betacam SP VTRs

**Connectors**

| | |
|---|---|
| Playback adapter: | 20-pin |
| External VTR Connector: | 26-pin |
| Camera Video OUT: | BNC (×2) |
| Camera GEN LOCK IN: | BNC |
| Camera MIC IN: | XLR (3-pin) with 48V OUT |
| Audio IN: | XLR (×2) (3-pin) with 48V OUT selectable |
| Headphone OUT: | Stereo mini jack |
| Remote: | Stereo mini jack |
| Lens: | 12-pin (for 2/3-inch lens) |
| DC IN: | XLR 4-pin (for the optional CMA-8ACE) |
| Time Code IN: | BNC |
| Time Code OUT: | BNC |

**Viewfinder (DXF-601CE)**

| | |
|---|---|
| Picture tube: | 1.5-inch monochrome |
| Indicators: | REC/TALLY/BATT/SHUTTER/GAIN UP by LED |
| Resolution: | 600TV lines |
| Power requirements: | DC 12V |
| Power consumption: | 2.1W |
| Mass: | 600g (1 lb 5 oz) |
| Dimensions: | Approx. 182(W) × 68(H) × 250(D)mm ($7^1/_4 \times 2^3/_4 \times 8^1/_8$ inches) |

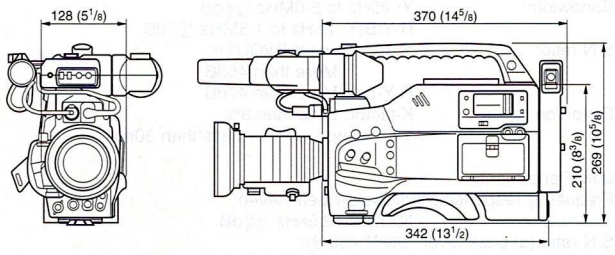
**Zoom Lens (VCL-714BX)**

| | |
|---|---|
| Focal length: | 7.5 to 97.5mm |
| Zoom ratio: | ×14 |
| Zoom control: | Manual/Motorized |
| Maximum aperture ratio: | 1:1.4 |
| Iris control/Auto selectable: | F1.4 to F16 and C (close) |
| Range of object field (at the distance of 1.0 meter): | |
| | W (wide angle): 880 × 660mm ($34^3/_4 \times 26$ inches) |
| | T (telephoto): 63 × 47mm ($2^1/_2 \times 1^7/_8$ inches) |
| Minimum object distance: | 1.0m |
| Filter thread: | ø = 72mm, P = 0.75 |
| Mount: | 1/2-inch bayonet |
| Mass: | Approx. 1.1kg (2 lb 6 oz) |
| Dimensions (ø × L): | Approx. 110 × 186mm ($4^3/_8 \times 7^3/_8$ inches) |

**Component Chart**

| | UVW-100BPF | UVW-100BPK | UVW-100BPL |
|---|---|---|---|
| Camcorder UVW-100BP | Yes | Yes | Yes |
| External microphone | Yes | Yes | Yes |
| Shoulder strap | Yes | Yes | Yes |
| Tripod adapter VCT-U14 | Yes | Yes | Yes |
| Viewfinder DXF-601CE | Yes | Yes | Yes |
| Zoom lens VCL-714BX | Yes | Yes | Option |
| Carring case LC-421 | Yes | Option | Option |

Dimensions




Unit: mm (inch)

* Peak level = +8dB above operational level.

## UVR-60P

**TBC Remote controller**

•Designed to control the Betacam SP studio VTR/EVO-9850P/SVO-5800P/SVP-5600P built-in TBCs
•19-inch rack mountable: Can be installed individually with the supplied blank panel or with another UVR-60P

Power requirements:
DC 12V, 9V (supplied from VTR)
Power consumption:
840mmW
Mass: 1.3kg (2 lb 13 oz)
Dimension: 215(W) × 44(H) × 101(D)mm
(8 1/2 × 1 3/4 × 4 inches)

Supplied accessories:
Remote control cable (5m)
Rack mount bracket
Blank panel
Screw
Operation manual

## BVX-10P

**Component colour corrector**

•Component signal colour corrector for Betacam VTR
•Preset/manual control of Gain, Black level and Gamma on R, G, B signals
•Easy connection—12-pin multi cables for component input and output, BNC connectors for component input and output (Y, B-Y, R-Y)
•Remote controller supplied (BVR-58)
•19-inch rack mountable

Power requirements:
AC 198 to 264V, 50/60Hz
Power consumption: 40W
Mass: Main unit: 6.1kg (13 lb 7 oz)
Remote controller:
0.9kg (1 lb 15 oz)
Dimensions: Main unit:
424(W) × 44(H) × 410(D)mm
(16 3/4 × 1 3/4 × 16 1/4 inches)
Remote controller:
212(W) × 44(H) × 110(D)mm
(8 3/4 × 1 3/4 × 4 3/8 inches)
Supplied accessories:
Rack mount units (2)
Remote control cable
(5m, 25-pin)
Operation and maintenance manual

## BKW-2010

**Control panel extension kit**

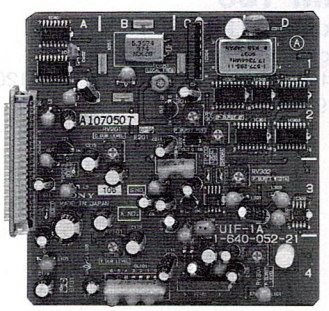
•Designed to remotely control the PVW-2800P/2650P/2600P
•Composition—Blank panel (1), 15-pin remote control cable (1), Cable for the internal circuits (1)

## BKW-2030

**U-matic DUB output kit**

•Enables transformation of Betacam SP material from a PVW VTR to a U-matic VTR

Dimension: 100(W) × 104(H) × 15(D)mm
(4 × 4 1/8 × 9/32 inches)
Mass: 70g (2.5 oz)



## BK-803

**Control panel case**

•Mounts the control panel which is removed from PVW-2800P/2650P/2600P
•Used with BKW-2010

Dimension: 448(W) × 56.5(H) × 218(D)mm
($17^{3}/_{4} \times 2^{1}/_{4} \times 8^{5}/_{8}$ inches)

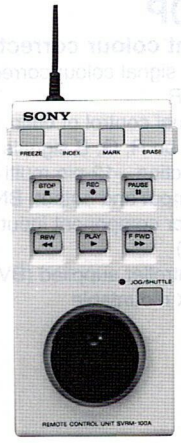
## SVRM-100A

**Remote control unit**

•Designed to remotely control the UVW-1800P/1700GP/1600P/1400AP/1200P
•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
•JOG/SHUTTLE operation •Enables ±16 times normal speed in search operation

**Specifications**

| | |
|---|---|
| Power requirements: | DC 5V (supplied from the VTR) |
| Power consumption: | 40mW |
| Remote control: | Stereo mini plug |
| Control signal: | Control S |
| Dimensions: | 90(W) × 39(H) × 182(D)mm ($3^{5}/_{8} \times 1^{9}/_{16} \times 7^{1}/_{4}$ inches) |
| Mass: | 250g (8.8 lb) |




## RMM-110

**Rack mount kit**

•Designed for use in mounting PVW-2800P/2650P/2600P into 19-inch rack

## RMM-130

**Rack mount kit**

•Designed for use in mounting UVW1800P/1700GP/1600P/1400AP/1200P into 19-inch rack

## AC-550CE

### AC Adaptor

•Supplies DC power to the UVW-100BP one-piece camcorder and a portable VTR through the 26-pin (CCZ-type) camera connector or the XLR 4-pin DC OUT connector

Supplied accessories:
AC power cord
DC power cord
Operation and Maintenance manual

Power requirements:
AC 110 to 120V/220 to 240V ±10% selectable, 50Hz
Power consumption: Max 130W
DC output: 13.5V, 7A
Input/Output connectors:
CAMERA: CCZ-type 26-pin
VIDEO OUT: BNC type
MIC OUT: Equivalent to XLR-3-31
DC OUT: Equivalent to XLR-4-31
EXT VBS: BNC type
Dimensions: 217(W) × 91(H) × 327(D)mm ($8^5/_8 \times 3^5/_8 \times 12^7/_8$ inches)
Mass: 3.8kg (8 lb 6 oz)

## VA-300P

### Playback Adaptor

•Provides full colour replay from UVW-100BP, PVV-3P
•Single 20-pin multicable connection to recorder
•2m cable supplied with VA-300P
•Composite and Y/C video signal output
•Two channel audio replay
•Provided with digital component TBS (Time Base Stabilizer) with high quality digital dropout compensation
•External SYNC lock capability

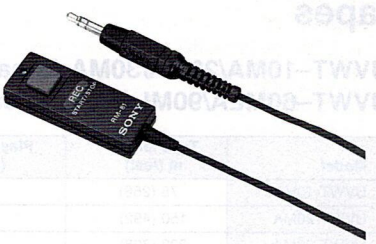
Power requirements:
DC 12V $^{+5.0}_{-1.5}$V
Power consumption: 11W
Mass: Approx. 1.6kg (3 lb 8 oz)
Dimensions: 212(W) × 88(H) × 222(D)mm ($8^3/_8 \times 3^1/_2 \times 8^3/_4$ inches)
Supplied accessories:
Connecting cable (2m, 20-pin)
Operation manual

## RM-81

### Remote control unit

•To START/STOP the recording mode of the UVW-100BP Betacam SP one-piece camcorder

Connector: Stereo mini
Cable length: 5m



## BCT MA series metal videocassette tapes

### BCT-5MA/10MA/20MA/30MA (Small cassettes)
### BCT-5MLA/10MLA/20MLA/30MLA/60MLA/90MLA (Large cassettes)

| Model | Tape length m (feet) | Playing time (min) | Mass* g (lb.) |
|---|---|---|---|
| BCT-5MA | 42 (138) | 6 | 231 (0.47) |
| BCT-10MA | 78 (256) | 12 | 241 (0.49) |
| BCT-20MA | 150 (492) | 24 | 256 (0.52) |
| BCT-30MA | 222 (728) | 36 | 276 (0.56) |
| BCT-5MLA | 58 (190) | 9 | 625 (1.38) |
| BCT-10MLA | 93 (305) | 15 | 630 (1.39) |
| BCT-20MLA | 172 (564) | 29 | 650 (1.43) |
| BCT-30MLA | 243 (797) | 39 | 660 (1.46) |
| BCT-60MLA | 457 (1,499) | 75 | 730 (1.61) |
| BCT-90MLA | 670 (2,198) | 110 | 790 (1.74) |

*With case

- For Betacam SP 2000 PRO VTRs PVW-2800P/2650P/2600P, PVV-3P and BVW series Betacam SP VTRs
- The highest possible picture can be reproduced.

## UVWT series metal videocassette tapes

### UVWT–10MA/20MA/30MA (Small cassettes)
### UVWT–60MLA/90MLA (Large cassettes)

| Model | Tape length m (feet) | Playing time (min) | Mass* g (lb.) |
|---|---|---|---|
| UVWT-10MA | 78 (256) | 12 | 241 (0.49) |
| UVWT-20MA | 150 (492) | 24 | 256 (0.52) |
| UVWT-30MA | 222 (728) | 36 | 276 (0.56) |
| UVWT-60MLA | 457 (1,499) | 75 | 730 (1.61) |
| UVWT-90MLA | 670 (2,198) | 110 | 790 (1.74) |

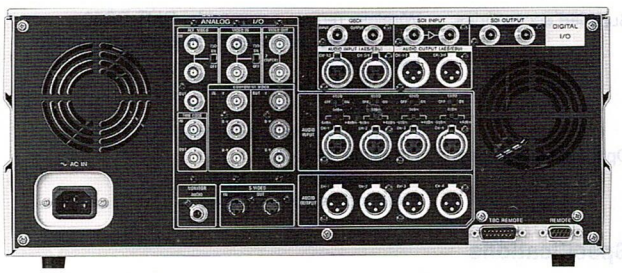
*With case

- Metal particle tape for UVW series VTRs
UVW-1800P/1700GP/1600P/1400AP/1200P

# DSR-85P

## Digital Videocassette Recorder

•Superb picture quality inherent in the DVCAM digital component recording format •A maximum 184 minutes of recording/playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital stereo recording for both two channel and four channel modes (selectable) •Newly developed drum mechanism and a QSDI allow high speed data transfer at four times normal speed for higher efficiency in editing (when used with ES-7 EditStation) •ClipLink Operation •Easy integration into existing analogue editing systems with full of analogue interfaces; composite, component and S-video for video and four channel or two channel (selectable) for audio inputs and outputs are provided •RS-422A 9-pin interface •Built-in EBU time code generator/reader •Built-in time base corrector with advanced high quality digital dropout compensation •Optional TBC Remote Control Unit UVR-60P •Digital slow (0 to ±1/5) •Frame accurate editing capability when controlled from optional RS-422A equipped editing controller unit •High-speed picture search provides recognizable colour picture at various speeds over a range of up to 32 times normal speed, in both forward and reverse •Jog audio within 1/30 to +1 times normal playback speed •Equipped with a SIRCS (Sony Integrated Remote Control System) interface to be controlled by an optional SVRM-100A Remote Control Unit •Built-in character generator •Initial setup menu to preset various detailed operational parameters •Consumer DV playback capability for editing •Quick responseive mechanism •Built-in self-diagnostics and erro log •Hours meter •Legible front panel design •Four units high and EIA standard 19-inch rack mountable



| | |
|---|---|
| Supplied accessories: | AC power code<br>Operating instructions<br>ClipLink Guide<br>RCC-5G Remote control cable |
| Optional accessories: | SDI input/output board DSBK-120P<br>Time code input/output board DSBK-130P<br>Remote control unit SVRM-100A<br>Rack mount unit RMM-130<br>TBC remote control unit UVR-60P<br>Remote control cable<br>RCC-5G/10G/30G (5m/10m/30m) |

## Specifications

**General**

| | |
|---|---|
| Type: | High speed editing recorder/player |
| Video recording system: | Rotary 14 head helical scan<br>Luminance: FM recording<br>Chrominance: FM recording |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC 200 – 240V, 50/60Hz |
| Power consumption: | 170W |
| Operating temperature: | +5°C to +40°C (+41°F to +104°F) |
| Storage temperature: | –20°C to +60°C (–4°F to +140°F) |
| Humidity: | Less than 80% (relative humidity) |
| Mass: | 21kg (46 lb 4oz) |
| Dimensions: | 427(W) × 174(H) × 500(D)mm<br>(16 7/8 × 6 7/8 × 19 3/4 inches)<br>excluding external projections |
| Tape speed: | 28.221mm/s |
| Recording/playback time: | More than 184 min. with PDV–184ME<br>More than 40 min. with PDVM–40ME |
| Fast forward/Rewind time: | Less than 3 min. with PDV–184ME<br>Less than 1 min. with PDVM-40ME |
| Search speed: | (with optional SVRM–100A) Shuttle: 8 steps, still to x16 normal speed, forward and reverse<br>(via RS-422A) × 32 normal speed, forward and reverse |
| Jog: | Frame by frame × 2, forward and reverse<br>Digital Slow: 2 steps, still to 1/10 normal speed, forward and reverse |
| Jog audio: | 1/30 to × 1, forward and reverse |

**Video performance (Metal evaporated tape)**

| | |
|---|---|
| Bandwidth: | (via analogue component I/O)<br>5.5MHz +1.0dB/–2.0dB<br>5.75MHz +0/–3.0dB (Typical measurement) |
| S/N ratio: | (via analogue component I/O)<br>More than 55dB |
| K–factor (K2T, KPB): | Less than 2.0% |
| Y/C delay: | 30ns |

**Audio performance (Metal evaporated tape)**

| | |
|---|---|
| Frequency response: | 2CH(48kHz): 20kHz,+0.5dB/–1.0dB<br>4CH(32kHz): 14.5kHz,+0.5dB/–1.0dB |
| Dynamic range: | More than 85dB |
| Distortion (THD+N): | Less than 0.05% |

**Signal inputs**

**Analogue**

| | |
|---|---|
| REF VIDEO: | 1.0Vp–p, 75Ω, sync negative<br>(BNC × 2, loop-through connection) |
| VIDEO: | 1.0Vp-p, 75Ω, sync negative<br>(BNC × 2, loop-through connection) |
| COMPONENT: | BNC × 3<br>Luminance(Y): 1.0Vp-p,75Ω, sync negative<br>Chrominance (R-Y, B-Y): 0.7Vp-p, 75Ω |
| S-VIDEO: | Mini DIN 4-pin<br>Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, 75Ω |
| AUDIO:<br>balanced | XLR 3-pin female × 2, -9dBu to 32dBu, 600Ω/10kΩ, |

**Digital**

| | |
|---|---|
| SDI*1: | Conforms to Serial Digital Interface (270Mbps), BNC × 2, loop-through connection, ITU-R BT.601 |
| QSDI: | BNC × 1 |
| AUDIO: | AES/EBU XLR 3-pin female × 2, 110Ω, balanced |

**Signal outputs**

**Analogue**

| | |
|---|---|
| REF VIDEO: | BNC × 1, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT-1/2 (SUPER): | BNC × 2, 1.0Vp-p, 75Ω, sync negative |
| COMPONENT: | BNC × 3, Luminance (Y): 1.0Vp-p, 75Ω, sync negative<br>R-Y/B-Y: 0.7Vp-p, 75Ω |
| S-VIDEO: | DIN 4-pin<br>Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, 75Ω |
| AUDIO: | XLR-3 pin male × 1, +4dBu, 600Ω, balanced |
| AUDIO MONITOR: | RCA phono jack × 1, –6dBu 47kΩ, unbalanced |
| HEADPHONES: | JM-60 headphone jack × 1, –16dBu<br>+2dB, 8Ω, unbalanced |

**Digital**

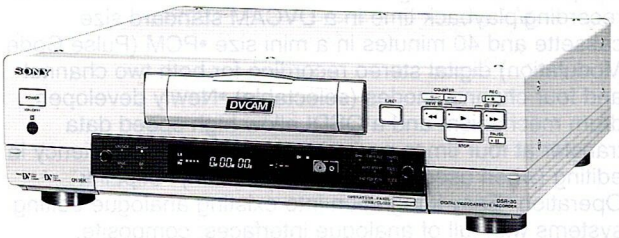
| | |
|---|---|
| SDI*1: | Conforms to Serial Digital Interface (270Mbps),<br>(BNC × 2, loop-through connection)<br>ITU-R BT.601 |
| QSDI: | BNC × 1 |
| TIME CODE: | Time code in: BNC × 1, 0.5Vp-p to 18Vp-p, 3kΩ, unbalanced Time code out: BNC × 1, 2.2Vp-p, +3.0dB, at 600Ω terminated |
| REMOTE: | RS-422A: 9-pin multi connector × 1 |
| TBC: | 15-pin × 1 |
| CONTROL-S (SIRCS): | Stereo mini jack × 1 |

*1: Using optional DSBK-120P (SDI Input/Output Board)
*2: Using optional DSBK-130P (Time code Input/Output Board)
* Video amplitude 100/0/100/0 colour bars
* Peak level +8dB above operational level

# DSR-30P

## Digital Videocassette Recorder

•Superb picture quality inherit in the DVCAM digital component recording format •A maximum 184 minutes of recording/playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital stereo recording for both one stereo (two channel) and two stereo (four channel) (selectable) •IEEE1394 based DV IN/OUT •LANC interface for remote control operation and LANC editing • Auto repeat/One program play •External timer recording •Duplication mode with the original time code •Index/Photo/Date search •Function lock •Clear frame picture •Control tray with a jog and shuttle dial •Supplied wireless remote controller •Headphone/microphone input




| | |
|---|---|
| Supplied accessories: | Wireless remote commander RMT-DS30<br>Size AA (R6) batteries for Remote Commander<br>LANC cable<br>Cleaning cassette DCM12CL<br>AC cable<br>Operation instruction manual |
| Optional accessories: | DV cable VMC-2DV<br>Editing system FXE-120P<br>Cleaning cassette DVM12CL |

## Specifications

**GENERAL**

| | |
|---|---|
| Weight: | Approx 9.2kg (20 lb 4 oz) |
| Dimensions: | Approx 430(W) × 129(H) × 374(D) mm<br>(17 × 5 1/8 × 14 7/8 inches) |
| Power requirements: | AC 220 to 240V |
| Power Consumption: | 32W |
| Operating Temperature: | 5°C to 40°C |
| Storage Temperature: | –20°C to 60°C |
| Tape Speed: | Approx 28.193mm/sec (DVCAM mode)<br>Approx18.79mm/sec (DV playback mode) |
| Tape Rewind time: | Less than 2 minutes with PDV-184ME |
| Search Speed: | –2, –1, –1/5, Still, 1/5, ×1 ×2,<br>Cue/Review (10 or 18 times) |

**VIDEO**

| | |
|---|---|
| Video Signal: | CCIR stnadards, PAL colour<br>(DSR-30P) |
| Video Input: | BNC × 1 (rear), Phone × 1 (front)<br>1V p-p, 75Ω, unbalanced sync negative |
| S video input: | Mini-DIN 4-pin (rear x1, front ×1)<br>Luminance Signal: 1Vp-p,<br>75Ω, unbalanced, sync negative<br>Chrominance signal:<br>300mVp-p (subcarrier burst),<br>75Ω, unbalanced |
| Video output: | BNC connector (rear ×2)<br>1Vp-p, 75Ω, unbalanced sync negative |
| S video output: | Mini-DIN 4-pin (rear ×2)<br>Luminance Signal: 1Vp-p, 75Ω,<br>unbalanced, sync negative<br>Chrominance signal:<br>300mVp-p (subcarrier burst),<br>75Ω, unbalanced |

**AUDIO**

| | |
|---|---|
| Input: | Phono jacks (rear L&R x1, front L&R ×1)<br>Input Level: 2Vrms (Full bit) |
| Output: | Phono jacks (rear L&R ×2)<br>Output level: 2Vrms (Full bit) |
| Digital IN/OUT: | DV IN/OUT, IEEE1394 based, 4 pin jack ×1 |
| Other Connectors: | Lanc: Stereo mini-mini jack<br>(front ×1, rear ×1, priority on the front)<br>Control S input: mini jack ×1<br>Control S output: mini jack ×1<br>Triger input: active short, Phone jack ×1<br>Headphone jack: stereo mini ×1 (front)<br>Microphone input: mini jack × 1, low impedance |

# DSR-1P

## Digital Videocassette Recorder

•Dockable recorder unit •Superior picture quality inherit in the DVCAM digital component recording format •Compact and light weight design •Low power consumption •Directly connected with both digital and analogue cameras due to incorporation of both Pro 76-pin Digital and Pro 50-pin connectors; DXC-D30P, DXC-637P, and DXC-327BP •Provides a full colour picture playback capability without any playback adaptor in field •Dual cassette mechanism allows both DVCAM mini cassette and standard cassette tapes to be used without any adaptor •A maximum 184 minutes of recording/playback time in a standard size cassette and 40 minutes in a mini size •Two selectable audio channel modes, two-channel and four-channel •PCM (Pulse Code Modulation) digital stereo recording for the two-channel mode •ClipLink operation for editing efficiency •Camera setup data file system (when docked with the DXC-D30P) •Full range of control provided (Fast forward/Rewind/Play /Stop/Eject) •Time Code display in playback •Record review function •Viewfinder playback capability •Built-in EBU time code generator and reader •Time base stabilizer •Frame accurate back space editing •8-digit LCD display •Built-in loud speaker •Built-in self-diagnostics and hours meter

| | |
|---|---|
| Supplied accessories: | Shoulder strap ×1 |
| | Lithium button cell (type CR2032) ×1 |
| | Operating manual ×1 |
| | Connector cap ×1 |
| | M4 ×6 Screws ×2 |
| | M4 ×12 Screws ×2 |
| | ClipLink Guide ×1 |
| Optional accessories: | Rechargeable NiCd battery NP-1B |
| | Rechargeable Lithium-ion battery BP-L60/BP-L90 |
| | Battery case (for NP-1B) DC-520 |
| | Battery adaptor for BP-L60/L90 KBWL601 |
| | Battery charger for four NP-1B Battery cahrger for four BP-90A and four NP-1B |
| | AC adaptor AC-550CE |
| | AC adaptor CMA-8ACE |
| | Camera adaptor (for BVP series) CA-514 |
| | Power supply cable (for CMA-8ACE) CCQX-3 |

## Specifications

**General**

| | |
|---|---|
| Type: | Dockable recorder unit |
| Operating temperature: | 0 to +40°C (32 to 104°F) |
| Storage temperature: | -20 to +60°C (-4 to +140°F) |
| Power requirements: | DC 12V +5/-1V |
| Power consumption: | 12W |
| Operating humidity: | Less than 85% |
| Storage humidity: | Less than 90% |
| Mass: | Approx. 2.85kg (6 lb 14 oz) (including battery NP-1B) |
| Dimensions: | 118(W) x 185(H) x 210(D)mm (4 3/4 x 7 3/8 x 8 3/8 inches) |
| Tape speed: | 28.2mm/s |
| Recording/playback time: | More than 184 min. with PDV-184ME |
| | More than 40 min. with PDVM-40ME |
| Fast forward/rewind time: | Less than 12 min. with PDV-184ME |
| | Less than 3 min. with PDVM-40ME |
| Continuous recording time: | Approx. 60 min. with NP-1B (DSR-1P + DXC-D30P) |

**Video performance (Metal evaporated tape)**

| | |
|---|---|
| Bandwidth: | Luminance: 25Hz to 5.5MHz +1.0dB/–2.0dB |
| | 5.75MHz +0dB/-3.0dB |
| | (Typical measurement) |
| | Chrominance: 25Hz to 2.0MHz +1.0dB/-2.0dB |
| S/N ratio: | More than 55dB |
| K-factor (K2T, KPB): | Less than 2.0% |
| Y/C delay: | 0 +30nsec. |

**Audio performance (Metal evaporated tape)**

| | |
|---|---|
| Frequency response: | 2CH mode (48kHz): 20kHz +0.5/-1.0dB |
| 4CH mode (32kHz): | 14.5kHz +0.5/-1.0dB |
| Dynamic range: | More than 80dB |
| Distortion (THD + N): | Less than 0.08% |

**Signal inputs**

| | |
|---|---|
| GEN LOCK VIDEO IN: | BNC, 1.0Vp-p, 75Ω |
| AUDIO IN CH-1/2: | XLR 3-pin female, –60dBu, 3kΩ/+4dBu, 10kΩ |
| TIME CODE IN: | BNC, 0.5Vp-p to 18Vp-p, 10kΩ |

**Signal outputs**

| | |
|---|---|
| VIDEO OUT: | BNC, 1.0Vp-p, 75Ω |
| S-VIDEO: | DIN 4-pin, |
| | Y: 1.0Vp-p, 75Ω, sync negative |
| | C: 0.3Vp-p, 75Ω |
| AUDIO OUT CH-1/2: | RCA pin, -10dBu, 47kΩ |
| TIME CODE OUT: | BNC, 1.0Vp-p, 75Ω |

**Others**

| | |
|---|---|
| ANALOGUE I/F: | Pro 50-pin |
| DIGITAL I/F: | Pro 76-pin Digital |
| DC12V(rear): | XLR 4-pin male |
| DC OUT: | 4-pin |
| EARPHONE OUT: | Stereo Mini Jack |

*The specifications of "video/audio performance" were measured by playing back material on a DSR-85P (via analogue component out) that had been recorded on the DSR-1P.
*Video amplitude 100/0/100/0 colour bars
*Peal level = +8dB above operational level

# DSR-130P series

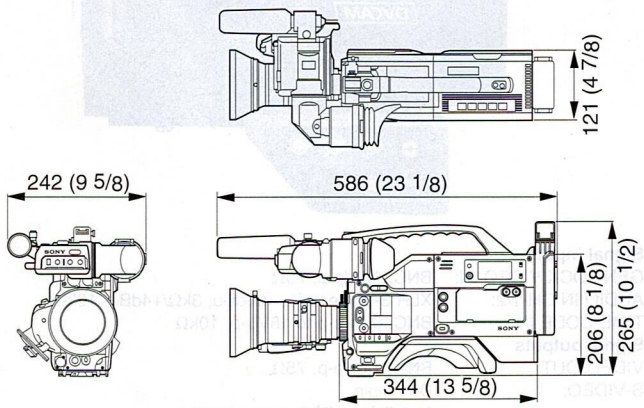
## DVCAM camcorder

•DVCAM digital camcorder with digital signal processing camera: DSR-1P docked with DXC-D30P via the Pro 76-pin connector •Status information and messages of the DSR-1P (time code, recording audio level, remaining battery power, remaining tape time, etc.) can be superimposed on the viewfinder •Time code superimposed during playback •Playback capability without an adaptor •Freeze mix function •ClipLink function •Compact and light weight 7.3kg (16 lb 1 oz) in operation •Low power consumption: approx. 24.8 W •Lightweight rugged magnesium diecast body •Large carrying handle for enhanced transportability and easier handling in low angle

Component chart

| | DSF-130PF | DSR-130PK | DSR-130PL |
|---|---|---|---|
| DXC-D30P Camera head | Yes | Yes | Yes |
| DSR-1P Recorder | Yes | Yes | Yes |
| Handle for DSR-130P | Yes | Yes | Yes |
| DFX-701CE Viewfinder | Yes | Yes | Yes |
| External microphone | Yes | Yes | Yes |
| Shoulder step | Yes | Yes | Yes |
| VCT-U14 Tripod adaptor | Yes | Yes | Yes |
| VCL-916BYA Zoom lens | Yes | Yes | Option |
| LC-421 Carrying case | Yes | Option | Option |

Dimensions




Unit: mm (inches)

# DSR-200

## DVCAM Camcorder

•DVCAM recording/playback and consumer DV playback capability •Compact and lightweight (4.7kg with 3 × NP-F930 and a tape) yet robust magnesium dicast body •Long Recording Time (184 minutes using PDV-184ME) •Long Operating Hours with Lithium Ion batteries, which have no memory effect (with 3 x NP-F930 in NPA-10000, 6 hours of continuous recording time) •3 CCD (1/3 inch) camera •Built-in lens with 10x zoom (10 times optical and 20 times digital) •DV IN/OUT for digital dubbing(DV OUT only for PAL model) •Optical Steady Shot for stable picture shooting without sacrificing picture resolutions. •Audio XLR connector for connecting professional michrophones (mic/line selectable) •Audio mode 48kHz/16bit and 32kHz/12bit selectable •Audio dubbing capability (32kHz/12bit only) •1 inch black & white view finder (CRT) •Manual operation on iris/gain/shutter speed/white balance and auto lock function switch to make iris/gain/shutter speed/white balance automatic •AGC auto limitor at 9dB (on/off on menu) •Photo Mode and frame interpolation for recording clear frame picture for 7 seconds

| | |
|---|---|
| Supplied Accessories: | Wireless Remote Commander RMT-807 |
| | AV stereo cable |
| | S cable |
| | Lens cap |
| | Clock Lithium Installed |
| | R6 Batt ×2 (for Remote Commander) |
| | Operation manual |

## Specifications

| | |
|---|---|
| **Lens** | |
| Zoom/Zoom speed | 10×, Variable (1.7 to 24sec) |
| Digital Zoom | 20×, Variable |
| Manual Zoom | No |
| F stops | 1.6 to 2,1 |
| f (Focal Distance) | 5.9 to 59mm |
| f (35mm conversion) | 42 to 420mm |
| Filter Diameter | ø52mm |
| Iris | 6 Blades |
| ND Filter | Yes |
| **Camera** | |
| Focus System | Auto/Manual (ring)/One push auto/infinity |
| Image Device | 1/3 inch × 3 CCD |
| Number of pixels | Gross 470k Eff 440K × 3 |
| Minimum Illumination | 4 lux (0.1 w/slow shutter) |
| White Balance | AWT/One push auto/5800K/3200K |
| | 5800K (outdoor)/3200K (indoor) |
| Shutter Control | Auto/Manual (<1/3,1/6, 1/12, 1/25>*1, 1/50, 1/100, 1/215, 1/425, 1/1000, 1/1750, 1/3500, 1/10000*2) |
| Gain | Auto/manual (-3, 0, 3, 6, 9, 12, 15,18) |
| Custom Preset | Yes*3 |
| Iris | Auto/Manual (F1.6, 2, 2.4, 2.8, 3.4, 4, 4.8, 5.6, 6.8, 8, 9.6, 11) |
| Edit Search (Cam/VTR) | |
| Rec. Review | Yes |
| Rec End Search | No |
| Interval Rec./Frame Rec. | Yes*4/Yes |
| Fader | Yes (Black, Overlap)*5 |
| Date Time/Auto Date | No/No*6 |
| Auto Lock Switch | Yes(Iris/White balance/Gain/Shutter Speed) |
| SteadyShot | Yes: Super SteadyShot (Optical) |
| Photo | Yes |
| **Viewfinder** | |
| B/W or Color | B/W 1inch CRT |
| Horizontal resolution | 550Lines |
| Zebra Pattern | Yes (On/Off by Menu) |
| **Audio** | |
| PCM Digital Stereo Rec. | 12bit 32kHz/16bit 48kHz |
| PCM Digital Stereo PB. | 12bit 32kHz/16bit 48kHz |
| Audio Dub | Yes(12bit 32kHz mode only) |
| Built-in Microphone | One-point Stereo type electret condenser |
| | Direction selectable (0°/90°/120°) |
| Wind switch | Yes |
| Rec level control | Yes (CH1, CH2 separately) |
| Headphone Level Control | Low/Middle/High (Menu) |
| Built-in Speaker | Yes |
| Audio Level Meter | Yes |
| Audio attenuator | Yes, Built-in mic & external audio input |

| | |
|---|---|
| **VTR** | |
| Format | DVCAM rec, DVCAM/DV playback |
| Clear frame still/Slow/ | |
| Frame Advance | Yes |
| 2×PB/Rev.PB | Yes |
| Advanced Data Code | Rec Date Time/Camera Info.*7 |
| Search Mode | Rec Date/Photo *8 |
| On Screen Data | Yes (On/Off w/Remote controller) |
| Zero Set Memory | No |
| Time Code | 0 reset, DF/NDF selectable |
| Menu | Yes |
| Wide(16:9) mode | Yes |
| **Jack** | |
| DV Out | Yes (IEEE1394 based) |
| Video Out | RCA × 1, BNC × 1 |
| S-Video Out | Yes |
| Audio Out | RCA L & R |
| External Audio Input (rear) | XLR3pin for CH1 &CH2 (mic/LINE selectable) |
| External Mic input (front) | stereo mini (RFU out for DC) |
| Headphone Jack | Yes (Stereo) |
| LANC | Stereo Mini jack |
| RFU DC Out | Yes |
| External DC In | Yes(4pin for DK-715 cable) |
| **Remote commander** | |
| Camera | Rec Start/Stop, Zoom, Photo |
| VTR | PB, Stop, FF, REW, Pause, |
| | Slow, ×2, Frame (+), (–) |
| | Search Mode, (+), (–) |
| | Data Code |
| Camera/VTR common | Display/ VTR4/ ID / Hold |
| **Others** | |
| Remote Sensor/ | |
| Remote on/off sw. | Yes/Yes (Menu) |
| Beep Sound On/off | |
| switch | Yes (Menu) |
| Digital Mode sw. | Yes(Digital zoom or Overlap, wide) |
| Front Tally On/Off sw. | No |
| Mass (With Tape,NPA-10000,3xNP-F930) | |
| | 4.7kg |
| Power Consumption | 11.6W |
| Dimensions*9 | 216(W) x 236(H) x 475(D)mm |
| Power requirement | 7.2V(battery operation) |
| | 8.4V(AC adaptor) |

| | |
|---|---|
| *1 Shutter Speed | Slow Shutter selected by menu |
| *2 Shutter Speed | High speed shutter selected by menu |
| *3 Custom Preset | AE Shift, White Balance, Colour Level, Gain Shift, Sharpness |
| *4 Interval Rec. | Rec. Time: 0.2sec, 0.5sec, 1sec, 2sec |
| | Interval time: 30sec, 1min, 5min, 10min |
| *5 Overlap | In Overlap mode, previous still picture can be displayed with transparency |
| *6 Date Time/Auto Date | Date Time is automatically recorded as Extended Data Code |
| *7 Camera Information | Shutter Speed, Gain , Iris, F No. |
| *8 Search mode | Based on Rec Date list/Photo list which are memorized in Cassette Memory. If Cassette Memory is not available, Rec Date search or Photo search will be executed without list. |
| *9 Dimensions | The view finder is removable. It also slides from minimum 216mm to 259mm in width. |

## DSBK-120P

### SDI Input/Output Board for DSR-85P

•When this board installed, simple connection with other SDI equipped devices such as Digital BETACAM™ can be obtained •Conforms to Serial Digital Interface (270Mbps)

| | |
|---|---|
| Connector: | BNC x2, loop-through connection ITU-R BT.601 |

## DSBK-130P

### Time Code Input/Output Board for DSR-85P

•Input and output of time code is possible with this board

| | |
|---|---|
| Connector: | BNC connector |

# PDV series
# Digital videocassette tapes

### PDVM-12ME/22ME/32ME/40ME (Mini size)
### PDV-64ME/94ME/124ME/184ME (Standard size)

| Model | Tape length m (feet) | Playing time (min) | Mass* g (lb.) |
|---|---|---|---|
| PDVM-12ME | 24 (79) | 12 | 58 (0.13) |
| PDVM-22ME | 41 (135) | 22 | 59 (0.13) |
| PDVM-32ME | 58 (190) | 32 | 60 (0.13) |
| PDVM-40ME | 71 (233) | 40 | 61 (0.13) |
| PDV-64ME | 112 (367) | 64 | 114 (0.25) |
| PDV-94ME | 163 (535) | 94 | 118 (0.26) |
| PDV-124ME | 214 (702) | 124 | 121 (0.27) |
| PDV-184ME | 315(1,033) | 184 | 128 (0.28) |

*With case

•For DSR-85P, DSR-30P, DSR-200P and DSR-1P
•Advanced Metal Evaporated cassette tapes •New dual evaporated layer structure protected by a DLC (Diamond Like Carbon) coating •Built-in16kbit IC memory

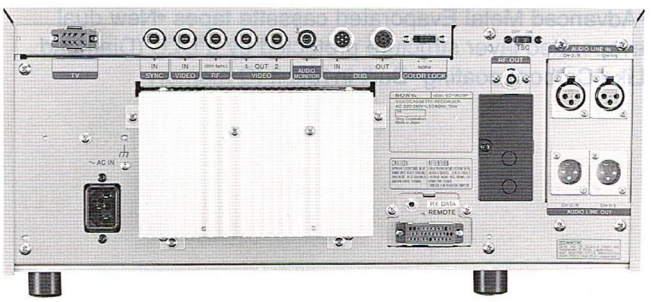
# VO-9600P (PAL)

U-matic SP

## Recorder

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/High Band/Low Band recording and playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •FCG-700 Frame Code Generator (optional) for frame code recording •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •Timer operation for recording and playback operation using an external timer •33-pin REMOTE connector for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Search Dial for high speed picture search at STILL, 1/30, 1/10, 1/5, 1/2, 1, 2, 5 times normal speed in the forward and reverse directions •Audio dubbing on CH-1 for additional audio recording on the audio CH-1 •Audio XLR balanced connectors for connection with professional audio equipment •Connection to an external TBC •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507

| | |
|---|---|
| Supplied accessories: | Operation manual<br>RF unit cover |
| Optional accessories: | Frame code generator FCG-700<br>Computer interface board BKU-701<br>Auto search control unit RX-707<br>Remote control unit RM-770<br>Remote control unit RM-500/580<br>Dubbing cable VDC-5A (5m)<br>Colour RF kit RFK-660UCE/UF/CH<br>Rack mount kit RMM-507 |



## Specifications

**General**

| | |
|---|---|
| Type: | Recorder |
| Video recording system: | Rotary 2 head helical scan |
| Luminance: | FM recording |
| Chrominance: | Converted subcarrier |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Operating voltage: | AC 198 to 264V |
| Power consumption: | 75W (with RM-580 and RFK-660) |
| Dimensions: | 424(W) × 192(H) × 492(D)mm<br>($16^3/_4 \times 7^5/_8 \times 19^3/_8$ inches) |
| Mass: | 18kg (39 lb 11 oz) |

**Video signal**

| | |
|---|---|
| Recording and Playback mode: | Low Band/High Band/SP mode |
| Input: | 1.0Vp-p±0.3V, 75Ω, unbalanced |
| Output: | LINE: 1.0Vp-p±0.2V, 75Ω, unbalanced |
| Horizontal resolution: | |
| SP mode | 300 lines (colour) |
| High Band mode | 260 lines (colour) |
| Low Band mode | 250 lines (colour) |
| S/N ratio (colour): | Better than 46dB |
| EXT sync input: | 2.5V (2.0 to 5.0V)p-p, 75Ω, unbalanced, negative |
| RF OUT (OFF TAPE): | 0.5Vp-p ±0.1V, 75Ω, unbalanced |

**Audio signal**

| | |
|---|---|
| Input: | MIC: –60dBu, at 3kΩ load, unbalanced<br>LINE: –5dBu, at 10kΩ load, balanced |
| Output: | LINE: +4dBu, at 600Ω load, balanced<br>HEADPHONE: –26 to –46dBu, at 8Ω load, unbalanced<br>MONITOR: –5dBu, at 47kΩ load, unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | |
| SP mode (Dolby off) | Better than 52dB (3% distortion) |
| Conventional mode | Better than 50dB (3% distortion) |
| **RF output** | With optional RF kit |

**Tape transport**

| | |
|---|---|
| Tape speed: | 9.53cm/s (3.8ips) |
| Wow and flutter: | ±0.23%p-p (DIN) |
| REC or PB time: | Max. 60min |
| Videocassette: | KSP/KSP-S/KCA-BRS/KCS-BRS |

**Technical features**

| | |
|---|---|
| Frame code operation: | YES (with BKU-701) |
| Remote control: | YES (33-pin and simple) |
| Electronic editing: | NO |
| Time code editing: | NO |
| Time code capability: | NO |
| High speed picture search: | YES (1/30, 1/10, 1/5, 1, 2, 5) |
| Jog search: | NO |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | YES (C-Type) |
| Audio dubbing: | YES (CH-1) |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL and frame code counter with BKU-701) |
| Timer operation: | YES (with an optional timer) |
| RF unit adaptable: | YES |

**VO-9600P**
**RECORDING MODE DETECTION SYSTEM**
DUB IN CONNECTOR

| VIDEOCASSETTE | INPUT SIGNAL | RECORDING MODE |
|---|---|---|
| KSP series | SP | SP |
| KCA/KCS series | | HIGH BAND |
| KSP series | HIGH BAND | SP |
| KCA/KCS series | | HIGH BAND |
| KSP series | LOW BAND | LOW BAND |
| KCA/KCS series | | LOW BAND |

VIDEO IN CONNECTOR

| VIDEOCASSETTE | REC MODE POSITION | RECORDING MODE |
|---|---|---|
| KSP series | SP/HIGH | SP |
| | LOW | LOW BAND |
| KCA/KCS series | SP/HIGH | HIGH BAND |
| | LOW | LOW BAND |

**VO-9600P/VP-9000P**
**PLAYBACK MODE DETECTION SYSTEM**

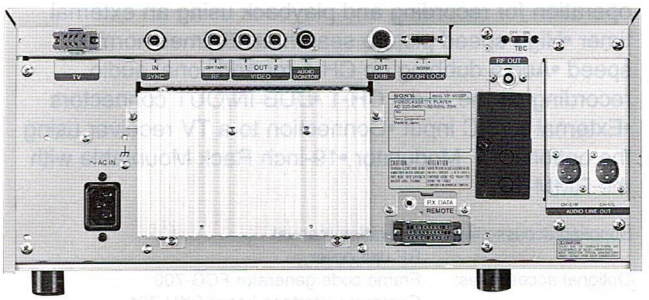
| VIDEOCASSETTE | RECORDING SIGNAL | PLAYBACK MODE |
|---|---|---|
| KSP series | SP | SP |
| | HIGH | HIGH |
| | LOW | LOW |
| KCA/KCS series | HIGH | HIGH |
| | LOW | LOW |

# VP-9000P (PAL)

U-matic SP

## Player

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/ High Band/Low Band playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •Timer operation for playback using an external timer •33-pin REMOTE connector for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Search Dial for high speed picture search at STILL, 1/30, 1/10, 1/5, 1/2, 1, 2, 5 times normal speed in the forward and reverse directions •Audio XLR balanced connector for connection with professional audio equipment •Connection to an external TBC •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507



| | |
|---|---|
| Supplied accessories: | Operation manual |
| | RF unit cover |
| Optional accessories: | Computer interface board BKU-701 |
| | Auto search control unit RX-707 |
| | Remote control unit RM-770 |
| | Remote control unit RM-500/580 |
| | Dubbing cable VDC-5A (5m) |
| | Colour RF kit RFK-660UCE/UF/CH |
| | Rack mount kit RMM-507 |

## Specifications

| | | |
|---|---|---|
| **General** | | |
| Type: | Player | |
| Video signal system: | CCIR monochrome/PAL colour | |
| Operating temperature: | 5 to 40°C (41 to 104°F) | |
| Power requirements: | AC 220 to 240V, 50/60Hz | |
| Operating voltage: | AC 198 to 264V | |
| Power consumption: | 70W (with RM-580 and RFK-660) | |
| Dimensions: | 424(W) × 192(H) × 492(D)mm | |
| | ($16^3/_4 \times 7^5/_8 \times 19^3/_8$ inches) | |
| Mass: | 18kg (39 lb 11 oz) | |
| **Video signal** | | |
| Playback mode: | Low Band/High Band/SP mode | |
| Output: | LINE: 1.0Vp-p±0.2V, 75Ω, unbalanced | |
| Horizontal resolution: | | |
| SP mode | 300 lines (colour) | |
| High Band mode | 260 lines (colour) | |
| Low Band mode | 250 lines (colour) | |
| S/N ratio (colour): | Better than 46dB | |
| EXT sync input: | 2.5V (2.0 to 5.0V) p-p, 75Ω, unbalanced, negative | |
| RF OUT (OFF TAPE): | 0.5Vp-p ±0.1V, 75Ω, unbalanced | |
| **Audio signal** | | |
| Output: | LINE: | +4dBu, at 600Ω load, balanced |
| | HEADPHONE: | –26 to –46dBu, at 8Ω load, unbalanced |
| | MONITOR: | –5dBu, at 47kΩ load, unbalanced |
| Frequency response: | 50Hz to 15kHz | |
| S/N ratio: | | |
| SP mode (Dolby off) | Better than 52dB (3% distortion) | |
| Conventional mode | Better than 50dB (3% distortion) | |

| | |
|---|---|
| **RF output** | With optional RF kit |
| **Tape transport** | |
| Tape speed: | 9.53cm/s (3.8ips) |
| Wow and flutter: | ±0.23% p-p (DIN) |
| PB time: | Max. 60min |
| Videocassette: | KSP/KSP-S/KCA-BRS/KCS-BRS |
| **Technical features** | |
| Frame code operation: | YES (with BKU-701) |
| Remote control: | YES (33-pin and simple) |
| Electronic editing: | NO |
| Time code editing: | NO |
| Time code capability: | NO |
| High speed picture search: | YES (1/30, 1/10, 1/5, 1, 2, 5) |
| Jog search: | NO |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | YES (C-Type) |
| Audio dubbing: | NO |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL and frame code counter with BKU-701) |
| Timer operation: | YES (with an optional timer) |
| RF unit adaptable: | YES |

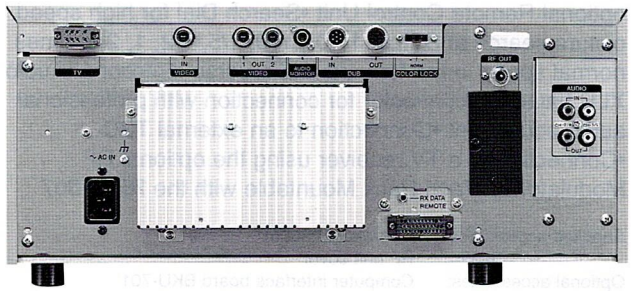
**SP IMPROVEMENTS**

| Videocassette | Recording U-matic | Playback U-matic | Luminance frequency response (resolution) | Luminance ringing | Chrominance ringing |
|---|---|---|---|---|---|
| KSP series | SP | SP | Very much improved | Very much improved | Very much improved |
| KSP series | SP | High Band | Much improved | Much improved | Improved |
| KSP series | High Band | SP | — | — | Improved |
| KSP series | High Band | High Band | — | — | — |
| KCA/KCS series | SP | SP | — | Much improved | Much improved |
| KCA/KCS series | SP | High Band | — | Improved | Improved |
| KCA/KCS series | High Band | SP | — | — | — |
| KCA/KCS series | High Band | High Band | — | — | — |

# VO-7630 (PAL/SECAM/NTSC4.43)

## Recorder

•High quality U-matic picture and sound •PAL (low band)/ SECAM/NTSC4.43 playback capability •PAL (low band)/ SECAM recording capability •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •FCG-700 Frame Code Generator (optional) for frame code recording •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •33-pin REMOTE connector for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Timer operation for recording and playback using an external timer •High speed picture search at ±5 times normal speed •Audio dubbing on CH-1 for additional audio recording on the audio CH-1 •DUB IN/OUT connectors •External SYNC input •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507




| | |
|---|---|
| Supplied accessories: | Operation manual<br>RF unit cover |
| Optional accessories: | Frame code generator FCG-700<br>Computer interface board BKU-701<br>Auto search control unit RX-707<br>Remote control unit RM-770<br>Remote control unit RM-500/580<br>Colour RF kit RFK-660UCE/UF/CH<br>Rack mount kit RMM-507 |

## Specifications

**General**

| | |
|---|---|
| Type: | Recorder |
| Video recording system: | Rotary 2-head helical scan<br>Luminance: FM recording<br>Chrominance: Converted subcarrier |
| Video signal system: | CCIR/EIA monochrome<br>PAL/SECAM/NTSC4.43 colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V (100 to 120V: USA model), 50/60Hz |
| Operating voltage: | AC 198 to 264V |
| Power consumption: | 65W (with RM-580 and RFK-660) |
| Dimensions: | 424(W) × 192(H) × 492(D)mm<br>($16\frac{3}{4} \times 7\frac{5}{8} \times 19\frac{3}{8}$ inches) |
| Mass: | 17kg (37 lb 8 oz) |

**Video signal**

| | |
|---|---|
| Recording and Playback mode: | Low Band mode |
| Input: | 1.0Vp-p $^{+1.0}_{-0.5}$V, 75Ω, unbalanced |
| Output: | LINE: 1.0Vp-p ±0.2V, 75Ω, unbalanced |
| Horizontal resolution: | 250 lines (colour) |
| S/N ratio (colour): | Better than 46dB |

**Audio signal**

| | |
|---|---|
| Input: | MIC: –60dBu, at 3kΩ load, unbalanced<br>LINE: –10dBu, 47kΩ, unbalanced |
| Output: | LINE/MONITOR: –5dBu, at 47kΩ load, unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | Better than 50dB (3% distortion) |

**RF output** With optional RF kit

**Tape transport**

| | |
|---|---|
| Tape speed: | 9.53cm/s (3.8 ips) |
| Wow and flutter: | 0.23% p-p (DIN) |
| REC or PB time: | Max. 60min |
| Videocassette: | KCA-BRS/KCS-BRS/KCA-XBR/KCS-XBR |

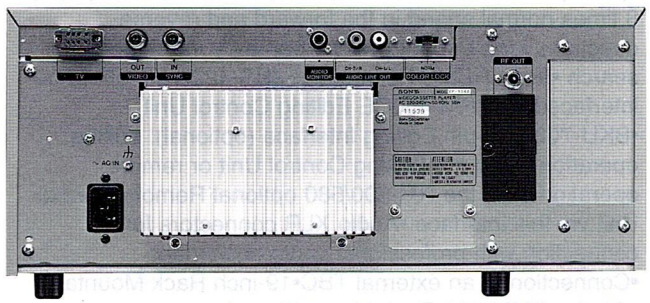
**Technical features**

| | |
|---|---|
| Frame code operation: | YES (with BKU-701) |
| Remote control: | YES (33-pin and simple) |
| Electronic editing: | NO |
| Time code editing: | NO |
| Time code capability: | NO |
| High speed picture search: | YES (×5) |
| Jog search: | NO |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | NO |
| Audio dubbing: | YES (CH-1) |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL and frame code counter with BKU-701) |
| Timer operation: | YES (with an optional timer) |
| RF unit adaptable: | YES (USA model: NO) |

# VP-7040 (PAL/SECAM/NTSC4.43)

**Player**

•High quality U-matic picture and sound •PAL (low band)/ SECAM/NTSC4.43 playback capability •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •BKU-702 (optional) 33-pin REMOTE interface for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Timer operation for playback using an external timer •High speed picture search at ±5 times normal speed •DUB OUT connector •External SYNC input •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507




| | |
|---|---|
| Supplied accessories: | Operation manual |
| | RF unit cover |
| Optional accessories: | 33-pin interface board BKU-702 |
| | Computer interface board BKU-701 |
| | Frame code generator FCG-700 |
| | Computer interface board BKU-701 |
| | Auto search control unit RX-707 |
| | Remote control unit RM-770 |
| | Remote control unit RM-500/580 |
| | Colour RF kit RFK-660UCE/UF/CH |
| | Rack mount kit RMM-507 |

## Specifications

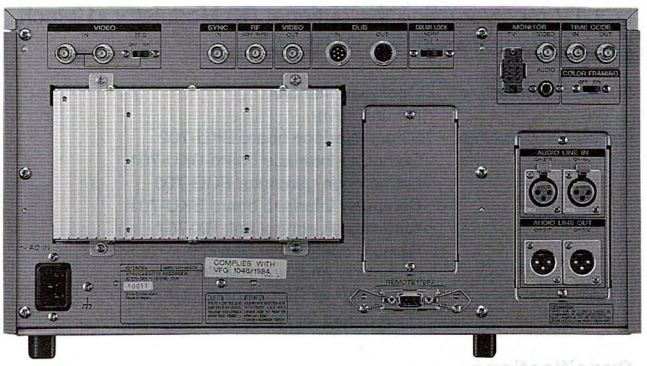
| | |
|---|---|
| **General** | |
| Type: | Player |
| Video signal system: | CCIR/EIA monochrome |
| | PAL/SECAM/NTSC4.43 colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V (100 to 120V: USA model), 50/60Hz |
| Operating voltage: | AC 198 to 264V |
| Power consumption: | 58W (with RM-580 and RFK-660) |
| Dimensions: | 424(W) × 192(H) × 492(D)mm ($16\frac{3}{4} \times 7\frac{5}{8} \times 19\frac{3}{8}$ inches) |
| Mass: | 16kg (35 lb 4 oz) |
| **Video signal** | |
| Playback mode: | Low Band mode |
| Output: | LINE: 1.0Vp-p ±0.2V, 75Ω, unbalanced |
| Horizontal resolution: | 250 lines (colour) |
| S/N ratio (colour): | Better than 45dB |
| EXT sync input: | 2.5V (1.0 to 5.0V) p-p, 75Ω, unbalanced, sync negative |
| **Audio signal** | |
| Output: | LINE/MONITOR: –5dBu, at 47kΩ load, unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | Better than 50dB (3% distortion) |
| **RF output** | With optional RF kit |
| **Tape transport** | |
| Tape speed: | 9.53cm/s (3.8 ips) |
| Wow and flutter: | 0.23% p-p (DIN) |
| PB time: | Max. 60min |
| Videocassette: | KCA-BRS/KCS-BRS/KCA-XBR/KCS-XBR |
| **Technical features** | |
| Frame code operation: | YES (with BKU-701) |
| Remote control: | 33-pin: YES (with BKU-702), Simple: YES |
| Electronic editing: | NO |
| Time code editing: | NO |
| Time code capability: | NO |
| High speed picture search: | YES (×5) |
| Jog search: | NO |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | NO |
| Audio dubbing: | NO |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL and frame code counter with BKU-701) |
| Timer operation: | YES (with an optional timer) |
| RF unit adaptable: | YES (USA model: NO) |

## VO-9850P (PAL)

U-matic SP

### Editing recorder

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/High Band recording capability •SP/High Band/Low Band playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-705 Time Code Generator/Reader or BKU-704 Time Code Reader (optional) for accurate time code editing •Built-in Editing Facility allows ASSEMBLE and INSERT editing (VIDEO, AUDIO, CH-1/CH-2) •Dial Menu Operation via search dial for user convenience: setting of time code (with the BKU-705), display of time code character on the monitor screen, setting preroll time, etc. •Shuttle Dial for high speed picture search: STILL, 1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8 times normal speed in the forward and reverse directions •Jog Dial for precise frame by frame picture search •9-pin REMOTE Interface (RS-422A serial): to be interfaced with RM-450CE Editing Control Unit •BKU-703A 33-pin Editing Interface (optional): editing operation using the Editing Control Unit or remote operation from the RM-500/580 optional Remote Control Unit via this interface •Audio XLR connectors for connection with professional audio equipment •Connection to an external TBC•19-inch Rack Mountable with the RMM-501 Rack Mount Kit



| | |
|---|---|
| Supplied accessories: | AC power cord |
| | Operation manual |
| Optional accessories: | 33-pin editing interface BKU-703A |
| | Time code reader BKU-704 |
| | Time code generator/reader BKU-705 |
| | Editing control unit RM-450CE |
| | Rack mount kit RMM-501 |
| | 9-pin remote cable RCC-5G/10G/30G |
| | Dubbing cable (5m) VDC-5A |
| | 33-pin remote cable RCC-5F |

### Specifications

**General**

| | |
|---|---|
| Type: | Editing Recorder |
| Video recording system: | Rotary 2 head helical scan |
| | Luminance: FM recording |
| | Chrominance: Converted subcarrier |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Operating voltage: | AC 99 to 264V |
| Power consumption: | 85W (with BKU-703, BKU-704 and RM-440) |
| Dimensions: | 426(W) × 238(H) × 513(D)mm |
| | ($16^{7}/_{8} \times 9^{3}/_{8} \times 20^{1}/_{4}$ inches) |
| Mass: | 21.4kg (47 lb 2 oz) |

**Video signal**

| | |
|---|---|
| Recording and playback mode: | |
| | High band and SP mode |
| | Low band mode (playback only) |
| Input: | 1.0Vp-p ±0.3V, sync negative 75Ω, unbalanced |
| Output: | 1.0Vp-p ±0.2V, sync negative 75Ω, unbalanced |
| Horizontal resolution: | |
| SP mode | 300 lines (colour) |
| High band mode | 260 lines (colour) |
| Low band mode | 250 lines (colour) |
| S/N ratio (colour): | Better than 46 dB |
| EXT sync input: | 2.5V (2.0 to 5.0V) p-p, negative, 75Ω, unbalanced |
| RF OUT (OFF TAPE): | 0.5V (0.3 to 1.0V) p-p, 75Ω, unbalanced |

**Audio signal**

| | |
|---|---|
| Input: | MIC: –60dBu, 3kΩ, unbalanced |
| | LINE: +4dBu, 10kΩ, balanced |
| Output: | LINE: +4dBu, at 600Ω, balanced |
| | HEADPHONE: –26dBu to –46dBu, at 8Ω, unbalanced |
| | MONITOR: –5dBu at 47kΩ, unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | |
| SP mode (Dolby off) | Better than 52dB (3% distortion) |
| Conventional mode | Better than 50dB (3% distortion) |

**Time code**

| | |
|---|---|
| Input: | 0dB ±6dB, 10kΩ, unbalanced (0dB=1.55Vp-p pulse) |
| Output: | 0dB ±3dB, low impedance, unbalanced (0dB=1.55Vp-p pulse) |

**RF output** NO

**Tape transport**

| | |
|---|---|
| Tape speed: | 9.53mm/s (3.8 ips) |
| Wow and flutter: | 0.23% p-p DIN |
| REC or PB time: | Max. 60min |
| Videocassette: | KSP/KSP-S/KCA-BRS/KCS-BRS |

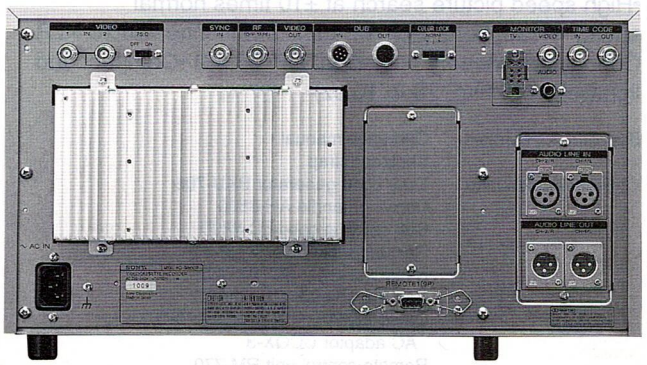
**Technical features**

| | |
|---|---|
| Frame code operation: | NO |
| Remote control: | YES (9-pin and 33-pin) |
| Electronic editing: | YES |
| Time code editing: | YES (with BKU-704/705) |
| Time code capability: | YES (with BKU-704/705) |
| High speed picture search: | YES (1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8) |
| Jog search: | YES |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | YES (C-Type) |
| Audio dubbing: | YES (Insert editing CH-1/CH-2) |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL counter) |
| Timer operation: | NO |
| RF unit adaptable: | NO |

## VO-9800P (PAL) U-matic SP

### Recorder (Editing player)

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/High Band recording capability •SP/High Band/Low Band playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-704 Time Code Reader (optional) for accurate time code editing •Back-space Editing Capability for smooth transitions between scenes •Audio dubbing on CH-1 for additional audio recording on audio CH-1 •Dial Menu Operation via the search dial for user convenience: display of time code character on the monitor screen, setting preroll time, etc. •Jog/Shuttle Dial for high speed and precise picture search—Jog: frame by frame tape control, Shuttle: Still, 1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8 times normal speed in the forward and reverse directions •9-pin REMOTE Interface (RS-422A serial): to be interfaced with RM-450CE Editing Control Unit •BKU-703A 33-pin Editing Interface (optional): editing operation using the RM-440 Editing Control Unit or remote operation from the RM-500/580 optional Remote Control Unit via this interface •Audio XLR connectors for connection with professional audio equipment •Connection to an external TBC •19-inch Rack Mountable with the RMM-501 Rack Mount Kit



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operational manual |
| Optional accessories: | 33-pin editing interface BKU-703A<br>Time code reader BKU-704<br>Editing control unit RM-450CE<br>Rack mount kit RMM-501<br>9-pin remote cable RCC-5G/10G/30G<br>Dubbing cable (5m) VDC-5A<br>33-pin remote cable RCC-5F |

### Specifications

| | |
|---|---|
| **General** | |
| Type: | Recorder (Editing player) |
| Video recording system: | Rotary 2 head helical scan<br>Luminance: FM recording<br>Chrominance: Converted subcarrier |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Operating voltage: | AC 99 to 264V |
| Power consumption: | 85W (with BKU-703, BKU-704 and RM-440) |
| Dimensions: | 426(W) × 238(H) × 513(D)mm<br>($16^{7}/_{8} \times 9^{3}/_{8} \times 20^{1}/_{4}$ inches) |
| Mass: | 21.4kg (47 lb 2 oz) |
| **Video signal** | |
| Recording and playback mode: | High band and SP mode<br>Low band mode (playback only) |
| Input: | 1.0Vp-p ±0.3V, sync negative 75Ω, unbalanced |
| Output: | 1.0Vp-p ±0.2V, sync negative 75Ω, unbalanced |
| Horizontal resolution: | |
| SP mode | 300 lines (colour) |
| High band mode | 260 lines (colour) |
| Low band mode | 250 lines (colour) |
| S/N ratio (colour): | Better than 46dB |
| EXT sync input: | 2.5V (2.0 to 5.0V) p-p, negative, 75Ω, unbalanced |
| RF OUT (OFF TAPE): | 0.5V (0.3 to 1.0V) p-p, 75Ω, unbalanced |
| **Audio signal** | |
| Input: | MIC: –60dBu, 3kΩ, unbalanced<br>LINE: +4dBu, 10kΩ, balanced |
| Output: | LINE: +4dBu, at 600Ω, balanced<br>HEADPHONE: –26dBu to –46dBu, at 8Ω, unbalanced<br>MONITOR: –5dBu at 47kΩ, unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | |
| SP mode (Dolby off) | Better than 52dB (3% distortion) |
| Conventional mode | Better than 50dB (3% distortion) |

| | |
|---|---|
| **Time code** | |
| Input: | 0dB ±6dB, 10kΩ, unbalanced<br>(0dB=1.55Vp-p pulse) |
| Output: | 0dB ±3dB, low impedance, unbalanced<br>(0dB=1.55Vp-p pulse) |
| **RF output** | NO |
| **Tape transport** | |
| Tape speed: | 9.53mm/s (3.8 ips) |
| Wow and flutter: | 0.23% p-p DIN |
| REC or PB time: | Max. 60min |
| Videocassette: | KSP/KSP-S/KCA-BRS/KCS-BRS |
| **Technical features** | |
| Frame code operation: | NO |
| Remote control: | YES (9-pin and 33-pin) |
| Electronic editing: | YES (Back space editing) |
| Time code editing: | YES (with BKU-704) |
| Time code capability: | YES (with BKU-704) |
| High speed picture search: | YES (1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8) |
| Jog search: | YES |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | YES (C-Type) |
| Audio dubbing: | YES (CH-1) |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL counter) |
| Timer operation: | NO |
| RF unit adaptable: | NO |

# VO-8800P (PAL)

U-matic SP

## U-matic portable recorder

•Ideally suited for news gathering and outdoor recording •Superior Performance (SP) Technology for excellent quality picture •SP/High Band recording and playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-706 Plug-in Time Code Generator (optional) for time code recording •Y/C separate input (14-pin Camera) to reduce cross colour •Back-space Editing Capability for smooth transitions between scenes •Video Confidence Playback to verify the recorded pictures simultaneously during recording •Three ways of warning system: warning on LCD/camera viewfinder and through audible warning alarm •Simple remote operation by the RM-770 optional Remote Control Unit (Wired only) •High speed picture search at ±10 times normal speed •Headphone jack for audio monitoring •Audio XLR Connectors •Battery operation: NP-1B × 2 •Compact and lightweight (6.2kg, 13 lb 10 oz)

| | |
|---|---|
| Supplied accessories: | Operation manual |
| | Shoulder strap |
| Optional accessories: | Time code generator BKU-706 |
| | Carrying handle AH-8800 |
| | Soft carrying case LC-8800 |
| | Rechargeable battery NP-1B |
| | Battery charger BC-1WDCE |
| | Camera adaptor CMA-8ACE |
| | Cable (CMA-8ACE g VO-8800P) 3m for AC adaptor CCQX-3 |
| | Remote control unit RM-770 |

## Specifications

**General**

| | |
|---|---|
| Type: | SP U-matic Portable Recorder |
| Video recording system: | Rotary 4 head helical scan |
| | Luminance: FM recording |
| | Chrominance: Converted subcarrier |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Power requirements: | DC 12V |
| Operating voltage: | DC 11 to 14V |
| Power consumption: | 17.5W |
| Dimensions: | 263(W) × 130(H) × 354(D)mm |
| | ($10^3/_8 \times 5^1/_8 \times 14$ inches) |
| Mass: | 6.2kg (13 lb 10 oz) |

**Video signal**

Recording and Playback mode: High band and SP mode

| | |
|---|---|
| Input: | 1.0Vp-p ±0.3V, sync negative 75Ω, unbalanced |
| Output: | 1.0Vp-p ±0.2V, sync negative 75Ω, unbalanced |
| Horizontal resolution: | |
| SP mode | 330 lines (colour, Y/C input) |
| | 300 lines (colour, composite) |
| High Band mode | 260 lines (colour, composite) |
| S/N ratio (colour): | Better than 46dB |

**Audio signal**

| | |
|---|---|
| Input: | AUDIO IN CH-1/L/DUB, CH-2/R |
| | (XLR 3-pin, female) × 1 each |
| | +4dBu/–20dBu/–60dBu switchable |
| | +4dBu: more than 10kΩ, balanced |
| | –20dBu/–60dBu: more than 3kΩ, balanced |
| | CAMERA (microphone input) (audio channel 2) |
| | +4dBu/–20dBu/–60dBu switchable |
| | +4dBu: more than 10kΩ, balanced |
| | –20dBu/–60dBu: more than 3kΩ, balanced |
| Output: | AUDIO OUT CH-1/L (monitor), |
| | CH-2/R (XLR 3-pin, male) × 1 each |
| | +4dBu, low impedance, balanced |
| | Headphone: –40dBu to –20dBu (at 8Ω), unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | |
| SP mode (Dolby off) | Better than 52dB (3%distortion) |
| Conventional mode | Better than 50dB (3%distortion) |

**Time code**

| | |
|---|---|
| Input: | 0dB ±6dB, 10kΩ, unbalanced |
| | (0dB=1.55Vp-p pulse) |
| Output: | 0dB ±3dB, low impedance, unbalanced |
| | (0dB=1.55Vp-p pulse) |

| | |
|---|---|
| **RF output** | NO |

**Tape transport**

| | |
|---|---|
| Tape speed: | 9.53cm/s (3.8 ips) |
| Wow and flutter: | 0.2% p-p DIN |
| REC or PB time: | Max. 20min |
| Videocassette: | KSP-S/KCS-BRS |

**Technical features**

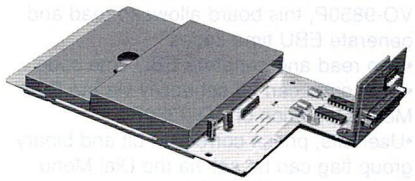
| | |
|---|---|
| Frame code operation: | NO |
| Remote control: | YES (simple, wired only) |
| Electronic editing: | YES (Back space editing) |
| Time code editing: | YES (with BKU-706) |
| Time code capability: | YES (with BKU-706) |
| High speed picture search: | |
| | YES (× 10) |
| Jog search: | NO |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | YES (C-Type) |
| Audio dubbing: | YES (CH-1) |
| EXT Sync lock (vertical): | YES |
| Programmed operation: | NO |
| Timer operation: | NO |
| RF unit adaptable: | NO |

## BKU-701

**Computer interface board**

•Reads the Frame Codes that have been recorded onto the videocassette tape
•Provides an RS-232C interface and allows the VTRs to be controlled from an external computer or the RX-707
•Video/audio signals can be output or muted by setting the BKU-701 dip switches to ON or OFF
•The baud rate can be selected from 1200, 2400, 4800, or 9600 bits per second (bps)

Signal: RS-232C
Connector: D-sub 25-pin
Dimensions: Approx.
125(W) × 52(H) × 223(D)mm
(5 × 2 1/8 × 8 7/8 inches)
Mass: Approx. 260g (9 oz)
Recommended VTR:
VO-7630/9600P,
VP-7040/9000P
Supplied accessory:
Operation manual

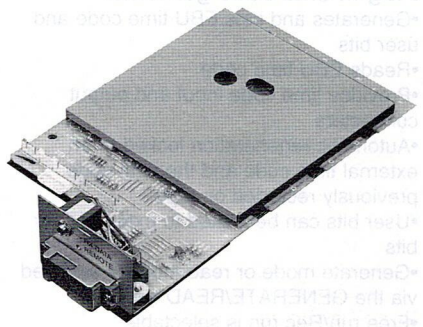


## BKU-702

**33-pin interface board**

•When the BKU-702 is installed into the VP-7040, the VP-7040 can be controlled remotely by a current 33-pin remote control unit such as the RM-500/555/580

Dimensions: 125(W) × 52(H) × 223(D)mm
(5 × 2 1/8 × 8 7/8 inches)
Mass: Approx. 260g (9 oz)
Recommended VTR:
VP-7040
Supplied accessory:
Installation manual



## BKU-703A

**33-pin editing interface**

•The BKU-703A 33-pin (parallel) editing interface can be installed into the VO-9850P/9800P, EVO-9850P for connection with the 33-pin remote control units such as the RM-500, RM-580 and RM-555

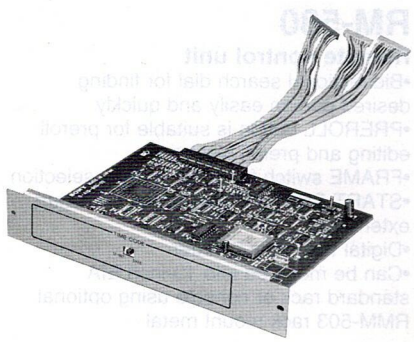
Dimensions: 63(W) × 109(H) × 64(D)mm
(2 1/2 × 4 3/8 × 2 5/8 inches)
Mass: 230g (8 oz)
Recommended VTR:
VO-9850P/VO-9800P and
EVO-9800P
Supplied accessory:
Installation manual

## BKU-704

**Time code reader**

•When the BKU-704 is installed into the VO-9850P/9800P, this board allows to read EBU time codes
•Time code or user bits can be superimposed on the video signal (monitor output) via the Dial Menu Operation of VO-9850P/9800P
•Easy installation

Time Code: EBU
Dimensions: 199(W) × 41(H) × 145(D)mm
(7 7/8 × 1 5/8 × 5 3/4 inches)
Mass: 190g (7 oz)
Recommended VTR:
VO-9850P and VO-9800P
Supplied accessory:
Installation manual

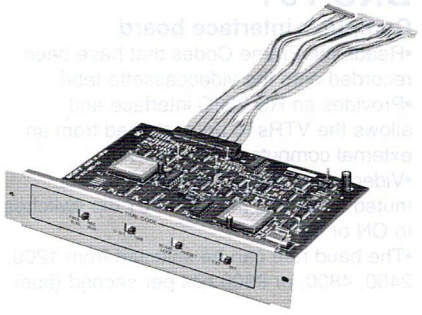


## BKU-705

**Time code generator/reader**

•When the BKU-705 is installed into the VO-9850P, this board allows to read and generate EBU time codes
•Can read and generate EBU time code
•Time code can be set easily via the Dial Menu Operation of VO-9850P
•User bits, phase correction bit and binary group flag can be set via the Dial Menu Operation of VO-9850P
•Free-run/rec-run mode can be selected via a switch
•Time code or user bits can be super imposed on the video signal (monitor output) via the Dial Menu Operation of VO-9850P
•Regeneration capability to an external time code or the one previously recorded on the tape
•Easy installation

Time Code: EBU
Dimensions: 199(W) × 41(H) × 145(D)mm ($7^7/_8 \times 1^5/_8 \times 5^3/_4$ inches)
Mass: 200g (7 oz)
Recommended VTR: VO-9850P
Supplied accessory: Installation manual



## BKU-706

**Plug-in time code generator**

•Generates and sets EBU time code and user bits
•Reads EBU time code
•Provides time code input and output connectors
•Automatic regeneration locked to an external time code and the time code previously recorded on tape
•User bits can be locked to external user bits
•Generate mode or read mode is selected via the GENERATE/READ switch
•Free run/Rec run is selectable
•Time code data is memorized and generated for more than 12 hours after the power is turned off when NP-1B batteries are installed

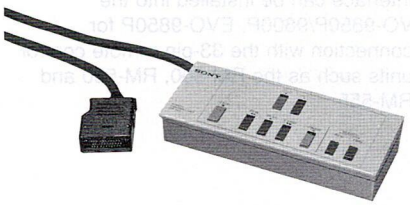
Time code: EBU
Dimensions: 28(W) × 86(H) × 81(D)mm ($1^1/_8 \times 3^1/_3 \times 3^1/_4$ inches)
Mass: 130g (5 oz)
Recommended VTR: VO-8800P
Supplied accessory: Installation manual

## RM-500

**Remote control unit**

•Basic functions of a VTR can be controlled remotely
•SEARCH buttons for picture search in both forward and reverse directions
•Can be mounted into 19-inch EIA standard rack or console using optional RMM-502 rack mount metal or optional RMM-505 rack mount metal (in case of attaching two RM-500s)

Power requirements: DC 6.8V $^{+0.7}_{-0.3}$ V (supplied from the VTR)
Power consumption: 1.2W
Operating temperature: 0 to 40°C (32 to 104°F)
Operating position: Any position
Dimensions: Approx. 212(W) × 87(H) × 38(D)mm ($8^3/_8 \times 3^1/_2 \times 1^1/_2$ inches)
Cable length: Approx. 3m (10 ft.) with 33-pin connector Extendable up to approx. 18m (60 ft.)
Mass: Approx. 0.9kg (2 lb) incl. cable
Recommended VTR: VO-7630/9600P, VP-7040/9000P



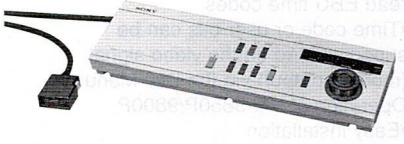
## RM-580

**Remote control unit**

•Bidirectional search dial for finding desired portion easily and quickly
•PREROLL button is suitable for preroll editing and preroll playback
•FRAME switch for 30/25 frames selection
•START SIGN to trigger the preroll start externally
•Digital tape time counter
•Can be mounted into 19-inch EIA standard rack or console using optional RMM-503 rack mount metal

Power requirements: DC 6.8V $^{+0.7}_{-0.3}$ V (supplied from the VTR)
Power consumption: 2.0W

Digital time counter: –9hours 59min 59s 29/24 frames to +9 hours 59min 59s 29/24 frames
Operating temperature: 0 to 40°C (32 to 104°F)
Operating position: Any position
Dimensions: Approx. 424(W) × 60(H) × 124(D)mm ($16^3/_4 \times 2^3/_8 \times 5$ inches)
Cable length: Approx. 3m (10 ft.) with 33-pin connector Extendable up to approx. 18m (60 ft.)
Mass: Approx. 2.0kg (4 lb 7 oz) incl. cable
Recommended VTR: VO-7630/9600P, VP-7040/9000P



## RM-770

**Remote control unit**

•Wireless/wired remote control capability for the VO-8800P/6800PS/7630/9600P, VP-7040/9000P

•Controls advanced functions such as SEARCH-FWD/SEARCH-REW, in addition to the basic functions of STOP/ REC/ PAUSE/F FWD/PLAY

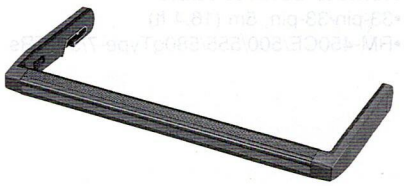
Power requirements:
DC 5V
(wireless: supplied from two R6 (AA size) batteries; wired: supplied from the VTR)
Power consumption: 0.2W

Connector: Special mini
Dimensions: Approx.
65 (W) × 18 (H) × 150 (D)mm
($2^5/_8 \times 2^3/_{32} \times 6$ inches)
Mass: Approx.
105g (4 oz) (excluding batteries)
Recommended VTR:
VO-8800P/7630/9600P
VP-7040/9000P
Supplied accessories:
Receiver
5m cable
R6 (AA size) battery (2)

## AH-8800

**Carrying handle for VO-8800P**

Mass: 370g (13 oz)



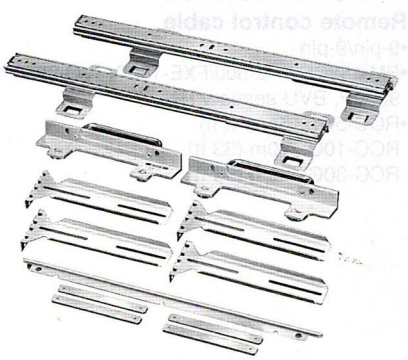
## LC-8800

**Soft carrying case for VO-8800P**

## RMM-501

**Rack mount kit**

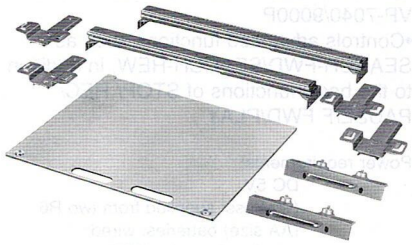
•Rack mount kit for use in mounting VO-9850P/9800P into 19-inch rack



## RMM-507

**Rack mount kit**

•Rack mount kit for use in mounting VO-9600P/7630 and VP-9000P/7040 into 19-inch rack



## RCC-5F

**Remote control cable**

•33-pin/33-pin, 5m (16.4 ft)
•RM-450CE/500/555/580gType-7/9 VTRs

## RCC-15FT

**Remote control extension cable**

•33-pin/33-pin, 15m (49.2 ft)
•RM-450CE/500/555/580gAll Type-7/9 VTRs

## RCC-G cables

**Remote control cable**

•9-pin/9-pin
•RM-450CE/PVE-500/FXE-100P↔VO-9850P/ 9800P, BVU series VTRs
•RCC-5G: 5m (16 ft)
RCC-10G: 10m (33 ft)
RCC-30G: 30m (98 ft)

## VTR accessory combinations

○Recommendable △Usable

| | | VO-9800P | VO-9850P | VP-9000P | VO-9600P | VP-7040 | VO-7630 | VO-8800P | BVU series |
|---|---|---|---|---|---|---|---|---|---|
| Remote controller and peripherals | RM-450CE | ○ | ○ | | | | | | ○ |
| | RM-500 | △ with BKU-703A | △ with BKU-703A | △ | △ | △ with BKU-702 | △ | | |
| | RM-580 | △ with BKU-703A | △ with BKU-703A | ○ | ○ | ○ with BKU-702 | ○ | | |
| | RM-770 | | | ○ | ○ | ○ | ○ | ○ | |
| | RM-555 | △ with BKU-703A | △ with BKU-703A | ○ | ○ | ○ with BKU-702 | ○ | | |
| | BKU-701 | | | ○ | ○ | ○ | ○ | | |
| | BKU-702 | | | | | ○ | | | |
| | BKU-703A | ○ | ○ | | | | | | |
| | BKU-704 | ○ | △ | | | | | | |
| | BKU-705 | | ○ | | | | | | |
| | BKU-706 | | | | | | | ○ | |
| Others | RMM-501 | ○ | ○ | | | | | | ○ BVU-900 series only |
| | RMM-507 | | | ○ | ○ | ○ | ○ | | |
| | AH-8800 | | | | | | | ○ | |
| | LC-8800 | | | | | | | ○ | |

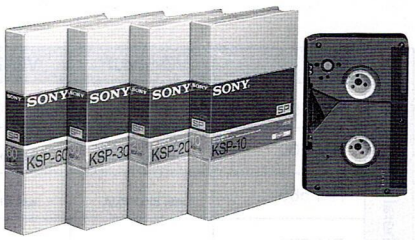
## KSP series

### Videocassette tapes

•For the SP U-matic videocassette tape recorder VO-9850P/9800P/9600P
•Can be used with conventional U-matic VTRs
•SP mode recording can be activated via the detection holes on the back of the cassette

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| **KSP-60** | 60 | 358 (1,174) | 855 (1.88) |
| **KSP-30** | 30 | 186 (610) | 745 (1.64) |
| **KSP-20** | 20 | 129 (423) | 695 (1.53) |
| **KSP-10** | 10 | 72 (236) | 645 (1.42) |
| **KSP-5** | 5 | 43 (141) | 630 (1.39) |

*With case



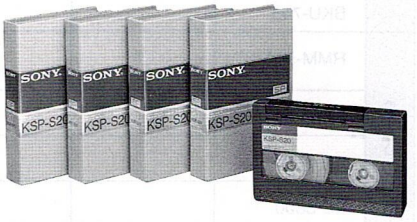

## KSP-S series

### Videocassette tapes

•For the SP U-matic videocassette tape recorder VO-9850P/9800P/9600P
•Can be used with the portable U-matic recorder VO-8800P, and the conventional U-matic VTRs
•SP mode recording can be activated via the detection holes on the back of the cassette

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| **KSP-S20** | 20 | 129 (423) | 525 (1.16) |
| **KSP-S10** | 10 | 72 (236) | 475 (1.05) |

*With case



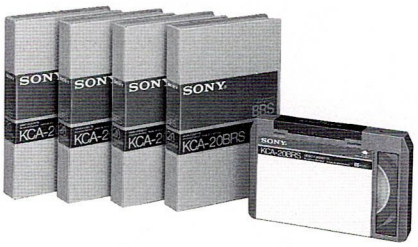

## KCA BRS series

### Videocassette tapes

•Regular size U-matic videocassette that offers improved video and audio characteristics (with hard case)

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| **KCA-60BRS** | 60 | 358 (1,174) | 855 (1.88) |
| **KCA-30BRS** | 30 | 186 (610) | 745 (1.64) |
| **KCA-20BRS** | 20 | 129 (423) | 695 (1.53) |
| **KCA-10BRS** | 10 | 72 (236) | 645 (1.42) |
| **KCA-5BRS** | 5 | 43 (141) | 630 (1.39) |

*With case



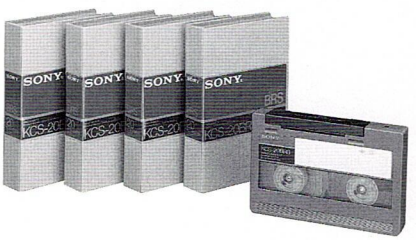

## KCS BRS series

### Videocassette tapes

•For Sony U-matic portable videocassette tape recorder VO-8800P series for improved video and audio characteristics
•Can be used with regular U-matic VTRs

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| **KCS-20BRS** | 20 | 192 (423) | 525 (1.16) |
| **KCS-10BRS** | 10 | 72 (236) | 475 (1.05) |

*With case



## KCS-1CL

**Head cleaning videocassette tape**

•For all types of U-matic videocassette tape recorder

# EVO-9850P video Hi8

## Hi8 videocassette editing recorder/player

•Video Hi8 format for excellent picture quality: 400TV lines •Full editing capability: assemble and insert (Video/PCM-1/PCM-2/Time Code) editing mode •Built-in TBC (8-bit, 4fsc)—controlled from the optional remote control unit •Digital NR (chrominance and luminance noise reducer) •Frame accurate time code based editing capability: 0 frame accuracy •Quick response mechanism •EBU time code IN/OUT interface (optional) •Built-in 8mm time code generator/reader •PCM digital and AFM stereo audio recording systems •JOG/SHUTTLE dial for picture search •Dial menu operation •9-pin remote connector (RS-422A) •PCM audio monitoring capability in the JOG search mode •Sony 33-pin remote interface (BKU-703A: Optional) •8mm DUB IN/OUT (7-pin) connectors •U-matic DUB OUT (7-pin) connector—use the 8mm DUB OUT connector in common •S-VIDEO IN/OUT connectors •19-inch rack mountable (with RMM-980), 3-unit high

| | |
|---|---|
| Supplied accessories: | V8-25CLH cleaning videocassette<br>Operation manual |
| Optional accessory: | EBU time code IN/OUT board EVBK-110<br>33-pin editing interface BKU-703A<br>TBC remote control unit UVR-60P<br>Rack mount kit RMM-980<br>9-pin remote cable RCC-5G/10G/30G<br>33-pin remote cable RCC-5F<br>U-matic dubbing cable VDC-5A |

## Specifications

**General**

| | |
|---|---|
| Mass: | 13.0kg (28 lb 10 oz) |
| Dimensions: | 424 (W) × 147 (H) × 452 (D)mm<br>($16^3/_4 \times 5^7/_8 \times 17^3/_4$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 60W |
| Operationg temperature: | 5 to 40°C (41 to 104°F) |
| Videocassette: | Sony E5-HMEX, E5-HMEAD, P5-HMPX |
| Tape speed: | 20.05mm/s |
| REC and PB time: | Approx. 90min (with E5-90/P5-90) |
| FF/REW time: | Approx. 3min (with E5-90/P5-90) |
| Search speed: | SHUTTLE mode: STILL<br>FORWARD: 1/20, 1/10, 1/5, 1/2, 1, 3, 9, 13 times normal speed<br>REVERSE: 1/20, 1/10, 1/5, 1/2, 1, 3, 7, 13 times normal speed |

**Video**

| | |
|---|---|
| Video recording system: | Two rotary heads and a flying erase head helical scanning FM system |
| Video signal system: | CCIR monochrome/PAL colour |
| Input: | |
| PAL composite video: | BNC connector<br>1.0Vp-p ±0.3V, 75Ω, unbalanced, sync negative |
| Y/C: | Mini DIN 4-pin<br>Y: 1.0Vp-p ±0.3V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| 8mm DUB IN: | 7-pin connector |
| REF IN: | Loop-through BNC connector |
| Output: | |
| PAL composite: | BNC connector<br>1.0Vp-p ±0.2V, 75Ω, unbalanced, sync negative |
| Y/C: | Mini DIN 4-pin<br>Y: 1.0Vp-p (0.2V, 75Ω)<br>C: 0.3Vp-p, at butst level, 75Ω, unbalanced |
| 8mm/U-matic DUB OUT: | 7-pin connector |
| TV OUT: | 8-pin connector |
| Horizontal resolution: | Hi8 mode (HME): 400TV lines |
| S/N ratio: | Hi8 mode: better than 45dB |
| REMOTE: | RS-422A × 1 (9-pin)<br>TBC REMOTE × 1 (D-sub 15-pin) |

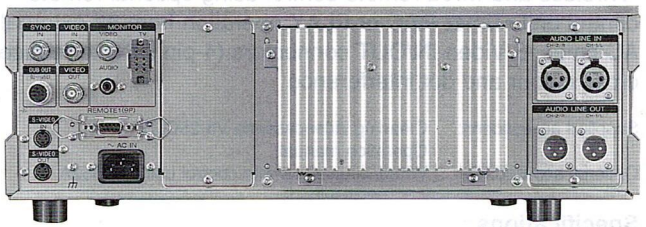
**Audio**

| | |
|---|---|
| Input (0dBu = 0.775Vrms): | |
| | Line: +4dBu, more than 10kΩ, balanced<br>Mic: –60dBu, more than 3kΩ, balanced |
| Output (0dBu = 0.775Vrms): | |
| | Line: +4dBu (at 600Ω) balanced<br>Headphones: –26dBu to –46dBu (at 8Ω), unbalanced |
| Frequency response: | PCM: 20Hz to 15kHz |
| Dynamic range: | PCM: better than 80dB |

# EVO-9800P video Hi8

## Video Hi8 recorder/player

•Video Hi8 format for improved picture quality: 400TV lines •Video Hi8 and standard 8mm format recording/ playback capability •Video Hi8 tape for Hi8 recording and high picture quality •Built-in Digital Chrominance Noise Reducer (Digital CNR) for improving chrominance S/N ratio and providing minimum jitter •PCM (Pulse Code Modulation) digital stereo and AFM (Audio Frequency Modulation) recording systems •U-matic DUB OUT connector for direct connection to the U-matic VTR via the VDC-5A dubbing cable to minimize picture degradation •Built-in 8mm time code generator/ reader •8mm time code insertion or after recording capability •Dial Menu Operation via the search dial for user convenience: Display of time code character on the monitor screen, Setting preroll time, etc. •Shuttle Dial for high speed picture search: STILL, 1/30, 1/10, 1/5, 1/3, 1, 2, 9, 15 times normal speed in the forward and 1/30, 1/10, 1/5, 1/3, 1, 3, 7, 13 times normal speed in the reverse direction •Jog Dial for precise frame by frame picture search •9-pin REMOTE interface for connection with RM-450CE Editing Control Unit •BKU-703A 33-pin Editing Interface (optional) for editing operation with the RM-440 •Audio XLR connectors •Compact size and 19-inch rack mountable: with RMM-980 Rack Mount Kit (3 Unit)




| | |
|---|---|
| Supplied accessories: | AC power cord |
| | Operation manual |
| Optional accessories: | 33-pin editing interface BKU-703A |
| | Rack mount kit RMM-980 |
| | 9-pin remote cable RCC-5G/10G/30G |
| | 33-pin remote cable RCC-5F |
| | U-matic dubbing cable VDC-5A |

## Specifications

**General**

| | |
|---|---|
| Mass: | 14.0kg (30 lb 14 oz) |
| Dimensions: | 424 (W) × 147 (H) × 452 (D)mm ($16^3/_4 \times 5^7/_8 \times 17^3/_4$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 50W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Videocassette: | Sony E5-HMEX, E5-HMEAD, P5-HMPX videocassette |
| Tape speed: | 20.05mm/s |
| REC or PB time: | 90min with E5-90 tape |
| Recording and playback format: | Video Hi8 and standard 8mm format |

**Video**

| | |
|---|---|
| Video recording system: | Two rotary heads and a flying erase head helical scanning FM system |
| Video signal system: | CCIR monochrome/PAL colour |
| Input: | 1.0Vp-p, sync negative, 75Ω, unbalanced<br>S connector (Mini DIN 4-pin):<br>Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| Output: | 1.0Vp-p, sync negative, 75Ω, unbalanced<br>S connector (Mini DIN 4-pin):<br>Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| Horizontal resolution: | Video Hi8 mode: 400TV lines |
| S/N ratio: | Video Hi8 mode: better than 45dB |

**Audio**

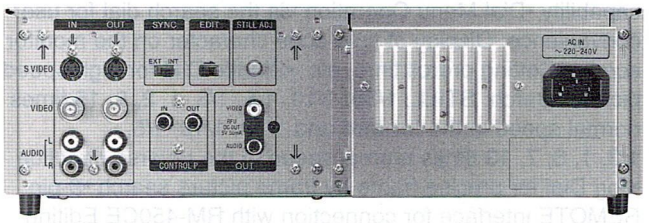
| | |
|---|---|
| Input: | LINE: CH-1/CH-2 (XLR 3-pin, female): +4dBu, 10kΩ, balanced<br>Microphone: –60dBu, 4.3kΩ, unbalanced<br>Phono: –7.5dBu, 47kΩ, unbalanced |
| Output: | LINE: CH-1/CH-2 (XLR 3-pin, male): +4dBu, 10kΩ, balanced |
| Frequency response: | 20Hz to 15kHz |
| Dynamic range: | PCM: better than 85dB |

# EVO-9500P

video Hi8

## Video Hi8 recorder/player

•Video Hi8 format for improved picture quality: 400TV lines •Video Hi8 and standard 8mm format recording/ playback capability •Video Hi8 tape for Hi8 recording and high picture quality •PCM (Pulse Code Modulation) digital stereo and AFM (Audio Frequency Modulation) recording systems •Auto repeat function •Clear still and slow motion pictures thanks to Dual Azimuth 4-head design •Control P terminals for multiple VTR operation •Additional audio recording on the PCM sound track •Built-in 8mm time code capability: 8mm time code generator/reader, time code insertion •Wireless and wired remote control using optional remote control unit •Timer REC or PLAY operation from an external AC timer •S Video IN/OUT connectors (4-pin DIN) to reduce cross colour and dot interference




| | |
|---|---|
| Supplied accessories: | Cleaning videocassette V8-25CLH<br>Operation manual |
| Optional accessories: | Wired/wireless remote control unit RM-S52A |

## Specifications

**General**

| | |
|---|---|
| Mass: | 6.5kg (14 lb 5 oz) |
| Dimensions: | 355 (W) × 116 (H) × 387 (D)mm<br>(14 × 4 5/8 × 15 1/4 inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 25W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Videocassette: | Sony E5-HMEX, E5-HMEAD, P5-HMPX videocassette |
| Tape speed: | 20.05mm/s |
| REC or PB time: | 90min with E5-90 tape |
| Recording and playback format: | Video Hi8 and standard 8mm format |

**Video**

| | |
|---|---|
| Video recording system: | Two rotary heads and a flying erase head helical scanning FM system |
| Video signal system: | CCIR monochrome/PAL colour |
| Input: | 1.0Vp-p, sync negative, 75Ω, unbalanced<br>S connector (Mini DIN 4-pin):<br>Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| Output: | 1.0Vp-p, sync negative, 75Ω, unbalanced<br>S connector (Mini DIN 4-pin):<br>Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| Horizontal resolution: | Video Hi8 mode: 400TV lines |
| S/N ratio: | Video Hi8 mode: better than 45dB |

**Audio**

| | |
|---|---|
| Input: | Microphone: –60dBu, 3kΩ, unbalanced<br>Phono: –7.5dBu, 47kΩ, unbalanced |
| Output: | Phono: –7.5dBu, 22kΩ, unbalanced |
| Frequency response: | 20Hz to 15kHz |
| Dynamic range: | PCM: better than 85dB |

# EVV-9000P

video Hi8

## Video Hi8 recorder unit

•Compact and lightweight camcorder by connecting to Sony 3-CCD colour video camera DXC-327BP/637P/D30P •Video Hi8 format for improved picture quality: 400TV lines •Video Hi8 and standard 8mm format recording/playback capability •Video Hi8 tape for Hi8 recording and high picture quality •Y/C separate input via 50-pin DIN to reduce cross colour •PCM (Pulse Code Modulation) digital stereo and AFM (Audio Frequency Modulation) recording systems •XLR balanced audio connectors for stable signal transmission •MIC/LINE input selectable •Built-in 8mm time code generator •Warning indications for reliable operation •REC REVIEW function convenient for confirmation of recording •Low power consumption of 7.5W •LCD window: indication of time code, warnings, etc. •Built-in earspeaker for audio monitoring •RF out

| | |
|---|---|
| Supplied accessories: | Shoulder strap<br>Guide for attaching shoulder strap<br>Metal mount for attaching shoulder strap<br>V8-25CLH cleaning cassette<br>Operation manual |
| Optional accessories: | 3-chip CCD colour video camera DXC-327BP/637P/D30P<br>VTR adaptor VA-90P<br>Rechargeable battery NP-1B<br>Battery charger BC-1WDCE<br>Camera adaptor CMA-8ACE<br>AC power cable CCQX-3 |

## Specifications

**General**

| | |
|---|---|
| Mass: | 1.8kg (4 lb) |
| Dimensions: | 115 (W) × 243 (H) × 189 (D)mm ($4^5/_8 \times 9^5/_8 \times 7^1/_2$ inches) |
| Power requirements: | DC 12V |
| Power consumption: | 7.5W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Videocassette: | Sony E5-HMEX, E5-HMEAD, P5-HMPX videocassette |
| Tape speed: | 20.05mm/s |
| REC or PB time: | 90min with E5-90 tape |
| Recording and playback format: | Video Hi8 and standard 8mm format |

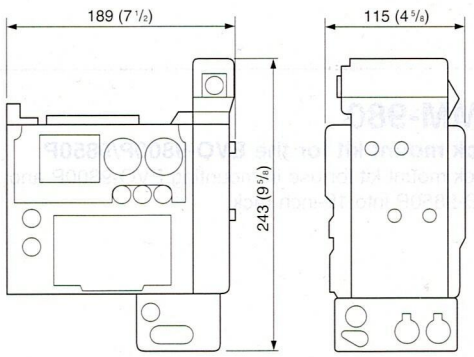
**Video**

| | |
|---|---|
| Video recording system: | Two rotary heads and a flying erase head helical scanning FM system |
| Video signal system: | CCIR monochrome/PAL colour |
| Input: | Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| Output: | 1.0Vp-p, sync negative, 75Ω, unbalanced |
| Horizontal resolution: | Video Hi8 mode: 400TV lines |
| S/N ratio: | Video Hi8 mode: 44dB |

**Audio**

| | |
|---|---|
| Input: | Microphone: –60dBu, 3kΩ, balanced<br>LINE: +4dBu, 10kΩ, balanced |
| Output: | Phono: –10dBu, 47kΩ, unbalanced |
| Frequency response: | 20Hz to 15kHz |
| Dynamic range: | PCM: better than 80dB |

**Dimensions**




Unit: mm (inch)

## UVR-60P

**TBC Remote controller**

•Designed to control the Betacam SP studio VTR/EVO-9850P/SVO-5800P/ SVP-5600P built-in TBCs
•19-inch rack mountable: Can be installed individually with the supplied blank panel or with another UVR-60P

Power requirements:
DC 12V, 9V (supplied from VTR)
Power consumption: 840mmW
Mass: 1.3kg (2 lb 13 oz)
Dimension: 215(W) × 44(H) × 101(D)mm
(8 1/2 × 1 3/4 × 4 inches)

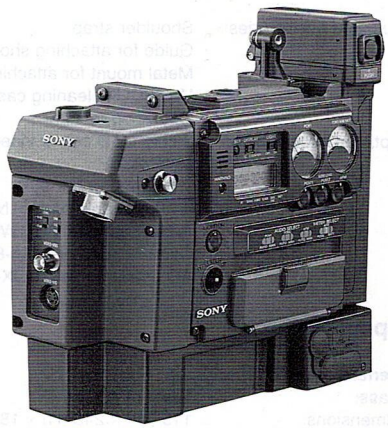
Supplied accessories:

Remote control cable (5m)
Rack mount bracket
Blank panel
Screw
Operation manual

## VA-90P

**VTR adaptor**

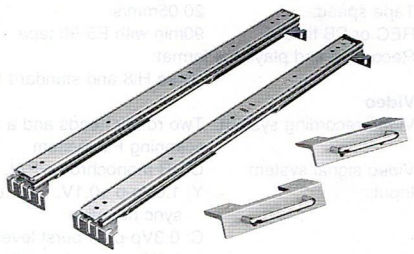
•Can be directly attached to the EVV-9000P video Hi8 recorder to be operated as a portable VTR •CCQ type (14-pin) connector for high quality video/audio recording •S-VIDEO IN for high quality video recording •Digital Y/C separator to achieve high quality video recording for composite video signals •Audio input level selectable –20dB/–60dB




## RMM-980

**Rack mount kit for the EVO-9800P/9850P**

•Rack mount kit for use in mounting EVO-9800P and EVO-9850P into 19-inch rack



# EVW-300P video Hi8

## Video Hi8 3-CCD one-piece camcorder

•Complete one-piece Hi8 camcorder •Compact and light weight: 5.6kg (12 lb 5 oz) including VF/lens/battery videocassette •Video Hi8 format for high quality pictures •PCM (Pulse Code Modulation) digital stereo and AFM (Audio Frequency Modulation) recording systems •High S/N ratio: 58dB (camera head) •High sensitivity: F8.0 at 2000 lx •High resolution: 700TV lines (camera portion) •Programmable gain up (0 to 18dB) •ATW (Auto Tracing White Balance) •Total Level Control System provides optimum adjutants for any lighting conditions: AGC (Automatic Gain Control), CCD AE (Auto Exposure) and Intelligent Auto Iris •Safety zone and Centre Marker indication in the view finder •Two memories for white balance value •×13 zoom lens: VCL-713BX (supplied with the EVW-300PK) •1/2 -inch bayonet mount •Variable speed electronic shutter •Clear Scan function (50 to 200Hz) •Camera gen-lock capability •Built-in 8mm time code: REGEN/PRESET, REC-RUN/FREE-RUN, USER BIT •Quick-start recording (less than 0.8s from STBY to REC) •EDIT SEARCH function •Long operation time: more than 90min with a single NP-1Bbattery •Low power consumption: 14.9W (REC mode)

## Specifications

**General**

| | |
|---|---|
| Mass (including NP battery, VF, zoom lens, Hi8 videocassette): | 5.6kg (12 lb 5 oz) |
| Power requirements: | DC 12V |
| Power consumption: | 14.9W (REC mode) |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Videocassette: | Sony E5-HMEX, E5-HMEAD, P5-HMPX series or equivalent |
| Tape speed: | 20.05mm/s |
| Continuous operation time: | Approx. 90min with an NP-1B |
| REC/ PB time: | Approx. 90min (with P5-90) |

**Camera portion**

| | |
|---|---|
| Image device: | 1/2-inch Interline-Transfer CCD |
| Optics: | F1.4 medium index prism system |
| Picture elements: | 752 × 582 (H/V) |
| Sensing area | 6.4mm × 4.8mm |
| Built-in filters: | 1: 3200K, 2: 5600K +1/16 ND 3: 5600K |

**Video**

| | |
|---|---|
| Lens mount | 1/2-inch bayonet mount |
| Video signal system: | PAL |
| Scanning system: | 2:1 interlaced, 625 lines |
| Horizontal frequency: | 15.625kHz |
| Vertical frequency | 50Hz |
| Horizontal resolution: | 700TV lines |
| Minimum illumination: | 7.5 lx with F1.4, +18dB |
| Sensitivity: | F8.0 at 2000 lx |
| Gain selection: | OFF (0dB), MID (1dB to 17dB), HIGH (2dB to 18dB), AGC (0dB to 18dB variable) |
| Shutter speed selection: | OFF (1/60), 1/100, 1/250, 1/500, 1/1000, 1/2000s |
| Clear Scan range: | 50Hz to 200Hz |
| S/N ratio: | 58dB |
| Registration: | 0.05% (all zones, without lens) |
| Geometric distortion: | Below measurable level |

**VTR Portion**

**Video**

| | |
|---|---|
| Video recording system: | Rotary 2-Head helical scan system |
| Output: | PAL composite: 1.0Vp-p, 75Ω, sync negative<br>S-VIDEO: Y: 1.0Vp-p, 75Ω, sync negative,<br>C: 0.3Vp-p, at burst level, 75Ω |
| Horizontal resolution: | 400TV lines |
| S/N ratio: | 44dB |

**Audio**

| | |
|---|---|
| Audio recording system: | Rotary 2-Head helical scan system |
| Input (XLR-3-pin, female): | MIC: –60dBu, 3kΩ, balanced<br>LINE: +4dBu, 10kΩ, balanced |
| Output: | Phono: –10dBu, 47kΩ, unbalanced |
| Frequency response: | 20Hz to 15kHz (PCM) |
| Dynamic range: | Better than 80dB (PCM) |

**Viewfinder**

**DXF-501CE**

| | |
|---|---|
| Picture tube: | 1.5-inch monochrome |
| Indicators: | REC/TALLY/BATT/SHUTTER/GAIN UP |
| Resolution: | 550TV lines |
| Power requirements: | DC 12V |
| Power consumption: | 2.3W |
| Mass: | 500g (1 lb 2 oz) |
| Dimensions: | Approx. 182 (W) × 64 (H) × 189 (D)mm (7 1/4 × 2 5/8 × 7 1/2 inches) |

**Zoom lens**

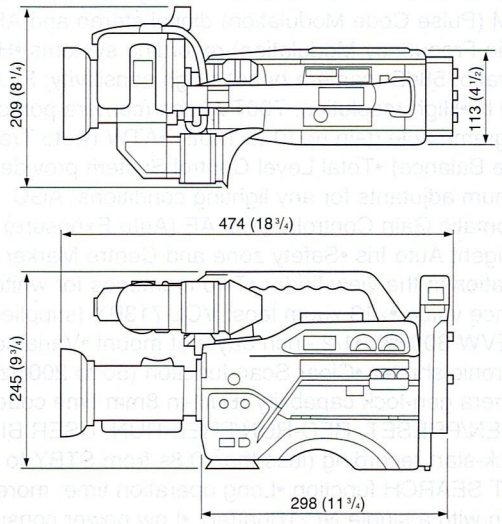
**VCL-713BX**

| | |
|---|---|
| Focal length: | 7.5 to 97.5mm |
| Zoom ratio: | ×13 |
| Zoom control: | Manual/ Motorized |
| Maximum aperture ratio | 1: 1.4 |
| Iris control Manual/ Auto selectable: | F1.4 to F16 and C (close) |
| Range of object field (at the distance of 1.1 metre): | W (wide angle): 785 × 589mm (31 × 231/4 inches)<br>T (telephoto): 61.7 × 46mm (2 1/2 × 1 7/8 inches) |
| Minimum object distance: | 1.0mm |
| Filter thread | ¶72mm P = 0.75 |
| Mount: | 1/2-inch bayonet mount |
| Mass: (with lens hood): | Approx. 950g (2 lb 1 oz) |
| Dimensions (ø × L): | Approx. 113 × 177mm (4 1/2 × 7 inches) |

| MODEL / COMPONENT | EVW-300PK | EVW-300PL |
|---|---|---|
| 3-CCD colour video camera | EVW-300P | EVW-300P |
| 1.5-inch viewfinder | DXF-501CE | DXF-501CE |
| 1/2-inch mount zoom lens | VCL-713BX | Optional |
| EVV-9000P VTR portion | — | — |
| Tripod adaptor | Supplied (VCT-12) | Supplied (VCT-12) |
| Carrying case | Optional (LC-422) | Optional (LC-422) |
| Shoulder strap | Supplied | Supplied |
| Operation manual | Supplied | Supplied |

**Dimensions**

**EVW-300P**




unit: mm (inch)

## Hi8 HMEAD Series 8mm videocassette

•Metal evaporated tape for Hi8 recording
•DLC(Diamond Like Carbon) protective coating for higher durability
•Ideal for both original acquisition and for editing and repeated playback
•Excellent picture quality

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| E5-30HMEAD | 30 | 39 (128) | 78 (0.172) |
| E5-60HMEAD | 60 | 75 (246) | 82 (0.181) |
| E5-90HMEAD | 90 | 111.5 (366) | 86 (0.189) |

*With case

## Hi8 HMEX series 8mm videocassette

•Metal evaporated Hi8 HMEAD seires lated Tape for Hi8 recording
•For maximizing Hi8 performance
•Hi8 mode recording can be activated via the detection holes on the back of the cassette
•Rugged, pro-type album case

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| E5-30HMEX | 30 | 39 (128) | 78 (0.172) |
| E5-60HMEX | 60 | 75 (246) | 82 (0.181) |
| E5-90HMEX | 90 | 111.5 (366) | 86 (0.189) |

*With case

## Hi8 HMPX series 8mm videocassette

•Metal particle tape for Hi8 recording
•Hi8 mode recording can be activated via the detection holes on the back of the cassette
•Rugged, pro-type album case

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| P5-30HMPX | 30 | 39 (128) | 80 (0.175) |
| P5-60HMPX | 60 | 75 (246) | 85 (0.187) |
| P5-90HMPX | 90 | 111.5 (366) | 90 (0.198) |

*With case

## MP series 8mm videocassette

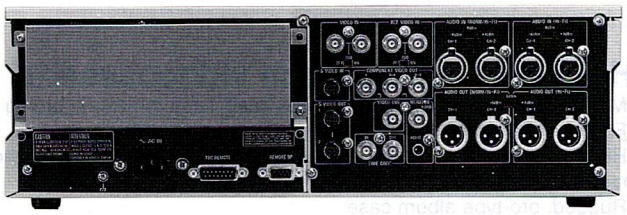
•For all 8mm videocassette recorder
•For standard 8mm recording

| Model | Playing time (min) |
|---|---|
| P5-30MP | 30 |
| P5-60MP | 60 |
| P5-90MP | 90 |
| P5-120MP | 120 |

# SVO-5800P

## S-VHS editing recorder

•Superb picture quality with S-VHS recording format and high quality signal processing techniques such as Digital Noise Reducer, Digital Field Dropout Compensator, Digital 3-line Comb Filter and newly developed Chroma Process Improvement •Built-in Time Base Corrector •Four channel audio recording system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Frame accurate full editing functions (Assemble, video/audio insert and audio split) •Back space editing capability •Built-in EBU standard LTC/VITC time code generator/reader •Optional UVR-60P TBC Remote Controller •Field freeze function with the optional UVR-60P or SVRM-100A Remote Control Unit •RS-422A 9-pin interface •Automatic edit select system •Automatic S-VHS record mode •S-video signal IN/OUT •Composite video signal IN/OUT •Y/R-Y/B-Y component video signal OUT with the optional SVBK-170P Component Output Board •Built-in character generator to display VTR status, time code, set-up menu and error message •Quick and smooth picture search up to 15 times normal speed in forward and reverse •User friendly initial set-up menu for a variety of customized VTR mode operations •Cue up point preset •Auto head cleaner •Compact and lightweight (3 units high, approx 11.5kg), 19-inch rack mountable •Very low power consumption (60W)



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operation manual |
| Optional accessories: | Component output board SVBK-170P<br>Remote control unit SVRM-100A<br>TBC remote controller UVR-60P<br>Rack mount kit RMM-980<br>Remote control cable RCC-5G/10G/30G (5m/10m/30m)<br>S-video cable SYC-2/5 (2m/5m) |

## Specifications

**General**

| | |
|---|---|
| Mass: | 11.5kg (25 lb 6 oz) |
| Dimensions: | 425(W) × 145(H) × 457(D)mm<br>($16^{3}/_{4} \times 5^{3}/_{4} \times 18$ inches) |
| Power requirements: | AC 220 to 240V, 50Hz, 3 wire grounded receptacle |
| Power consumption: | 60W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Tape speed: | 23.39mm/s |
| Tape format: | S-VHS or VHS |
| F FWD and REW time: | Approx. 2.5min (with SE-180) |
| Search speed (with optional SVRM-100A)*1: | SHUTTLE: STILL, 1/10*2, 1/5, 1/2, 1, 2, 5, 15 times normal speed, forward and reverse<br>JOG: Frame by frame, forward and reverse |

**Video**

| | |
|---|---|
| Video signal system: | PAL (colour)/ CCIR (monochrome) |
| Video recording system: | Rotary two-head helical scanning FM system |
| Input: | REF VIDEO IN (BNC × 2, loop-through): Black burst or 1.0Vp-p, 75Ω, unbalanced, sync negative<br>COMPOSITE IN (BNC × 2, loop-through): 1.0Vp-p, 75Ω, unbalanced, sync negative<br>S-VIDEO IN (Mini DIN 4-pin): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative<br>C; 0.3Vp-p (burst), 75Ω, unbalanced |
| Output: | COMPOSITE OUT (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative<br>S-VIDEO OUT (Mini DIN 4-pin × 2): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative<br>C; 0.3Vp-p (burst), 75Ω, unbalanced<br>COMPONENT OUT (BNC × 3, with optional SVBK-170P): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative<br>R-Y; 0.7Vp-p, 75Ω, unbalanced<br>B-Y; 0.7Vp-p, 75Ω, unbalanced<br>VIDEO MONITOR OUT (Super) (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative |
| Horizontal resolution: | VHS: More than 240TV lines<br>S-VHS: More than 400TV lines |
| S/N ratio: | More than 46dB (in S-VHS/VHS mode) |

**Audio**

| | |
|---|---|
| Input: | Normal CH-1/2 (XLR): +4/0/–6dBm selectable, 600Ω, balanced<br>Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable, 600Ω, balanced |
| Output: | Normal CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced<br>Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced<br>AUDIO MONITOR OUT (PIN): –5dBu, at 47kΩ load, unbalanced<br>HEAD PHONE OUT (STEREO PHONE): –50 to –18dBu at 8Ω load unbalanced |
| S/N ratio (Normal audio at 3% distortion, Dolby OFF): | More than 43dB |
| Frequency response: | Normal: 50Hz to 12kHz<br>Hi-Fi: 20Hz to 20kHz |
| Dynamic range: | More than 90dB (in Hi-Fi mode) |

**Others**

| | |
|---|---|
| TIME CODE IN (BNC): | 0dBu ±6dB, 10kΩ, unbalanced (0dBu=1.55Vp-p PULSE) |
| TIME CODE OUT (BNC): | 0dBu ±3dB at 10kΩ load, unbalanced (0dBu=1.55Vp-p PULSE) |

**Remote**

| | |
|---|---|
| TBC REMOTE: | 15-pin multi |
| REMOTE: | 9-pin multi, RS-422A standards |
| WIRED SIRCS: | Control-S (Power supplied type) |

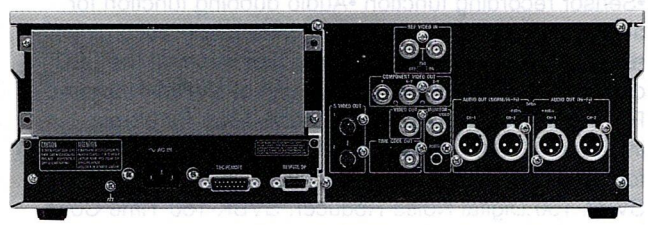
*1 Without the SVRM-100A attached, search speed is conducted at ±15 times normal speed by continuously pushing the F FWD or REW button.
*2 When controlled from an RS-422A equipped editing controller, the minimum search speed is achieved at ±1/20 times normal speed.

# SVP-5600P

S-VHS

## S-VHS editing player

•Superb picture quality with S-VHS recording format and high quality signal processing techniques such as Digital Noise Reducer, Digital Field Dropout Compensator, Digital 3-line Comb Filter and newly developed Chroma Process Improvement •Built-in Time Base Corrector •Four channel audio playback system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Built-in EBU standard LTC/VITC time code reader •Optional UVR-60P TBC Remote Controller •Field freeze function with the optional UVR-60P or SVRM-100A Remote Control Unit •RS-422A 9-pin interface •S-video signal OUT •Composite video signal OUT •Y/R-Y/B-Y component video signal OUT with the optional SVBK-170P Component Output Board •Built-in character generator to display VTR status, time code, set-up menu and error message •Quick and smooth picture search up to 15 times normal speed in forward and reverse •User friendly initial set-up menu for a variety of customized VTR mode operations •Cue up point preset •Auto head cleaner •Compact and lightweight (3 units high, approx 11.5kg), 19-inch rack mountable •Very low power consumption (53W)



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operation manual |
| Optional accessories: | Component output board SVBK-170P<br>Remote control unit SVRM-100A<br>TBC remote controller UVR-60P<br>Rack mount kit RMM-980<br>Remote control cable RCC-5G/10G/30G (5m/10m/30m)<br>S-video cable SYC-2/5 (2m/5m) |

## Specifications

**General**

| | |
|---|---|
| Mass: | 11.5kg (25 lb 6 oz) |
| Dimensions: | 425(W) × 145(H) × 457(D)mm<br>(16¾ × 5¾ × 18 inches) |
| Power requirements: | AC 220 to 240V, 50Hz, 3 wire grounded receptacle |
| Power consumption: | 53W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Tape speed: | 23.39mm/s |
| Tape format: | S-VHS or VHS |
| F FWD and REW time: | Approx. 2.5min (with SE-180) |
| Search speed (with optional SVRM-100A)*1: | SHUTTLE: STILL, 1/10*2, 1/5, 1/2, 1, 2, 5, 15 times normal speed, forward and reverse<br>JOG: Frame by frame, forward and reverse |

**Video**

| | |
|---|---|
| Video signal system: | PAL (colour)/ CCIR (monochrome) |
| Input: | REF VIDEO IN (BNC × 2, loop-through): Black burst or 1.0Vp-p, 75Ω, unbalanced, sync negative |
| Output: | COMPOSITE OUT (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative<br>S-VIDEO OUT (Mini DIN 4-pin × 2):<br>Y; 1.0Vp-p, 75Ω, unbalanced, sync negative<br>C; 0.3Vp-p (burst), 75Ω, unbalanced<br>COMPONENT OUT (BNC × 3, with optional SVBK-170P):<br>Y; 1.0Vp-p, 75Ω, unbalanced, sync negative<br>R-Y; 0.7Vp-p, 75Ω, unbalanced<br>B-Y; 0.7Vp-p, 75Ω, unbalanced<br>VIDEO MONITOR OUT (Super) (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative |
| Horizontal resolution: | VHS: More than 240TV lines<br>S-VHS: More than 400TV lines |
| S/N ratio: | More than 46dB (in S-VHS/VHS mode) |

**Audio**

| | |
|---|---|
| Output: | Normal CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced<br>Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced<br>AUDIO MONITOR OUT (PIN): –5dBu, at 47kΩ load, unbalanced<br>HEAD PHONE OUT (STEREO PHONE): –50 to –18dBu at 8Ω load unbalanced |
| S/N ratio (Normal audio at 3% distortion, Dolby OFF): | More than 43dB |
| Frequency response: | Normal: 50Hz to 12kHz<br>Hi-Fi: 20Hz to 20kHz |
| Dynamic range: | More than 90dB (in Hi-Fi mode) |

**Others**

| | |
|---|---|
| TIME CODE OUT (BNC): | 0dBu ±3dB at 10kΩ load, unbalanced<br>(0dBu=1.55Vp-p PULSE) |

**Remote**

| | |
|---|---|
| TBC REMOTE: | 15-pin multi |
| REMOTE: | 9-pin multi, RS-422A standards |
| WIRED SIRCS: | Control-S (Power supplied type) |

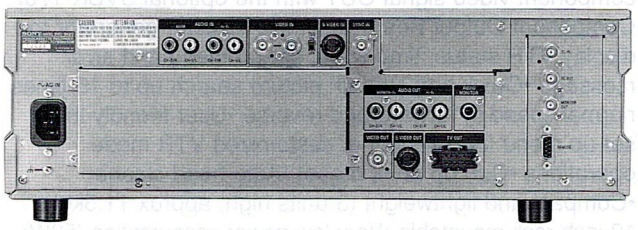
*1 Without the SVRM-100A attached, search speed is conducted at ±15 times normal speed by continuously pushing the F FWD or REW button.
*2 When controlled from an RS-422A equipped editing controller, the minimum search speed is achieved at ±1/20 times normal speed.

# SVO-9620 (PAL/NTSC4.43)

S-VHS

## Recorder

•High quality SVHS picture and sound •PAL/NTSC4.43 playback capability •Four channel audio recording system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Auto head cleaner to provide preventive care of the tape heads •Dial menu operations via the search dial for a variety of customized VTR mode settings •Recognizable colour pictures over a range of -1/30 to +5 (-10 to +10 with the optional SVRM -100A) times normal speed in search mode; frame by frame picture search with the JOG dial •Programmed operation with MARK IN A and MARK IN B •Timer Rec and Play function for unattended operations •Sensor recording function •Audio dubbing function for additional audio, such as music or narration, recording •Error code and real time counter indication on the LED display •Optional remote control unit of SVRM-100A and RM-V200 •Optional interface: SVBK-100A for 33-pin interface, SVBK-120 for RS-232C interface, and SVBK-140 for RS-422A 9-pin remote interface •Optional boards: SVBK-150 Digital Noise Reducer, SVBK-160 Time Code Board, SVBK-180P RS-232C Interface Board



| | |
|---|---|
| Supplied Accessories: | AC power cord |
| | Instruction manual |
| Optional Accessories: | 33-pin interface board SVBK-100 |
| | Computer interface board (RS-232C) SVBK-120 |
| | RS-422A interface board SVBK-140 |
| | Digital noise reducer SVBK-150 |
| | Time code board SVBK-160 |
| | RS-232C Interface board SVBK-180P |
| | Remote control unit SVRM-100A |
| | Remote control unit RM-V200 |
| | Rack mount kit RMM-980 |

## Specifications

**General**

| | |
|---|---|
| Mass: | 14.0kg (30 lb 14 oz) |
| Dimensions: | 424 (W) × 147 (H) × 452 (D)mm |
| | ($16^{3}/_{4} \times 5^{7}/_{8} \times 17^{7}/_{8}$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Less than 55W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| REC/PB mode: | SP |
| Tape Speed: | SP: 23. 39mm/s |
| Tape format: | S-VHS or VHS |
| F FWD and REW time: | Max. 2min (with SE-120) |

**Video**

| | |
|---|---|
| Video signal system: | PAL and NTSC4.43 Colour |
| Video recording system: | Rotary two-head helical scanning FM system |
| Input: | BNC: 1.0Vp-p, 75Ω, sync negative |
| | S-VIDEO: Mini DIN 4-pin |
| | Y: 1.0Vp-p, 75Ω, sync negative |
| | C: 0.3Vp-p, at burst level, 75Ω |
| Output: | BNC: 1.0Vp-p, 75Ω, sync negative |
| | S-VIDEO: Mini DIN 4-pin |
| | Y: 1.0Vp-p, 75Ω, sync negative |
| | C: 0.3Vp-p, at burst level, 75Ω |
| Horizontal resolution: | More than 400TV lines (S-VHS) |
| | More than 240TV lines (VHS) |
| S/N ratio: | 45dB (colour) |

**Audio**

| | |
|---|---|
| Input: | Phono: –6dBu, 47kΩ, unbalanced |
| Output: | Phono: –6dBu, 10kΩ, unbalanced |
| Monitor Output: | Phono: –5dBu, 10KΩ |
| Frequency response: | 50Hz to 12kHz (in normal mode) |
| | 20Hz to 20kHz (in Hi-Fi mode) |
| Dynamic range: | 90dB (in Hi-Fi mode) |

**Connectors**

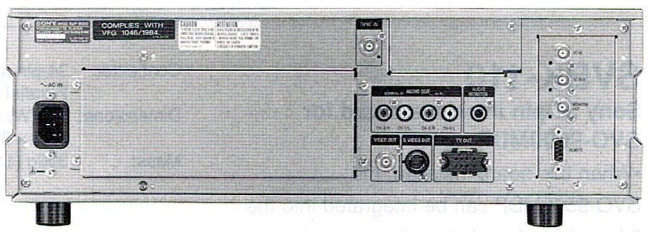
| | |
|---|---|
| Video: | IN × 1 with loopthrough out (BNC) |
| | OUT × 1 (BNC) |
| | SYNC IN × 1 (BNC) |
| Audio: | Hi-Fi (AFM) IN × 2 (Phono) |
| | NORMAL IN × 2 (Phono) |
| | Hi-Fi (AFM) OUT × 2 (Phono) |
| | NORMAL OUT × 2 (Phono) |
| | Monitor OUT × 1 (Phono) |
| S VIDEO: | IN × 1 (Mini DIN 4-pin) |
| | OUT × 1 (Mini DIN 4-pin) |
| TV connector: | OUT × 1 (8-pin) |

## SVO-9020 (PAL/NTSC4.43)

S-VHS

### Player

•High quality SVHS pictuer and sound •PAL/NTSC4.43 playback capability •Four channel audio playback system: two for Hi-Fi (AFM) and two for normal longitudinal audio •Doldy B type Noise Reducer for normal audio •Auto head cleaner to provide preventive care of the tape heads •Dial menu operation via the search dial for a vairiety of customize VTR mode setting •Recognizable colour pictures over a range of/10to +10 times normal speed in search mode;frame by frame pictuer search with the JOG dial •Programmed operation with MARK IN A and MARK IN B •TimerRec and Play function for nuattended operation •Error code and real time counter indication on the LED display •Optional remote contrrol unit of SVRM-100A and RM-V200 •Optional interface:SVBK-100 for 33-pin interface, SVBK-120 for RS-232C interface, and SVBK-140 for RS-422A 9-pin remote interface •Optional SVBK-160Time Code Board and SVBK-180P RS-232C Interface Board



| | |
|---|---|
| Supplied Accessories: | AC power cord |
| | Instruction manual |
| Optional Accessories: | 33-pin interface board SVBK-100 |
| | Computer interface board (RS-232C) SVBK-120 |
| | RS-422A interface board SVBK-140 |
| | Digital noise reducer SVBK-150 |
| | Time code board SVBK-160 RS232C |
| | Interface Board SVBK-180P |
| | Remote control unit SVRM-100A |
| | Remote control unit RM-V200 |
| | Rack mount kit RMM-980 |

### Specifications

**General**

| | |
|---|---|
| Mass: | 14.0kg (30 lb 14 oz) |
| Dimensions: | 424 (W) × 147 (H) × 452 (D)mm |
| | ($16^{3}/_{4} \times 5^{7}/_{8} \times 17^{7}/_{8}$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Less than 55W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| REC/PB mode: | SP |
| Tape Speed: | SP: 23.39mm/s |
| Tape format: | S-VHS or VHS |
| F FWD and REW time: | Max. 2min (with SE-120) |

**Video**

| | |
|---|---|
| Video signal system: | PAL and NTSC4.43 Colour |
| Video recording system: | Rotary two-head helical scanning FM system |
| Input: | BNC: 1.0Vp-p, 75Ω, sync negative |
| | S-VIDEO: Mini DIN 4-pin |
| | Y: 1.0Vp-p, 75Ω, sync negative |
| | C: 0.3Vp-p, at burst level, 75Ω |
| Output: | BNC: 1.0Vp-p, 75Ω, sync negative |
| | S-VIDEO: Mini DIN 4-pin |
| | Y: 1.0Vp-p, 75Ω, sync negative |
| | C: 0.3Vp-p, at burst level, 75Ω |
| Horizontal resolution: | More than 400TV lines (S-VHS) |
| | More than 240TV lines (VHS) |
| S/N ratio: | 45dB (colour) |

**Audio**

| | |
|---|---|
| Output: | Phono: –6dBu, 10kΩ, unbalanced |
| Monitor Output: | Phono: –5dBu, 10KΩ |
| Frequency response: | 50Hz to 12kHz (in normal mode) |
| | 20Hz to 20kHz (in Hi-Fi mode) |
| Dynamic range: | 90dB (in Hi-Fi mode) |

**Connectors**

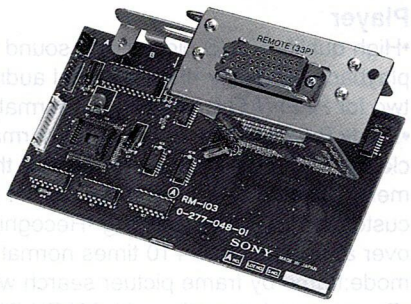
| | |
|---|---|
| Video: | OUT × 1 (BNC) |
| | SYNC IN × 1 (BNC) |
| Audio: | Hi-Fi (AFM) IN × 2 (Phono) |
| | NORMAL IN × 2 (Phono) |
| | Monitor OUT × 1 (Phono) |
| S VIDEO: | OUT × 1 (Mini DIN 4-pin) |
| TV connector: | OUT × 1 (8-pin) |

## SVBK-100

**Sony 33-pin interface board for SVO-9620/9500MDP and SVP-9020**

•When this board installed, VTR functions can be remotely controlled via 33-pin parallel interface

Connector: 33-pin multi connector (1)
Parallel control signal
Dimensions: 168(W) × 92(H) × 60(D)mm
($6^5/_8 \times 3^5/_8 \times 2^3/_8$inches)
Mass: 330g (11 oz)

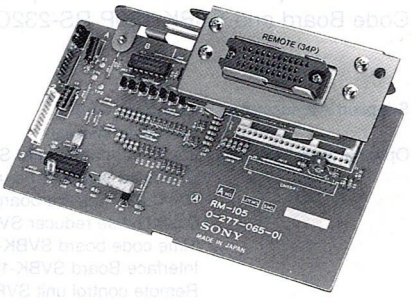



## SVBK-110

**Sony 34-pin interface board for SVO-9500MDP**

•When this board installed, the SVO-9500MDP can be integrated into the 34-pin based control system

Connector: 34-pin multi connector (1)
Parallel control signal
Dimensions: 168(W) × 92(H) × 60(D)mm
($6^5/_8 \times 3^5/_8 \times 2^3/_8$inches)
Mass: 300g (11 oz)

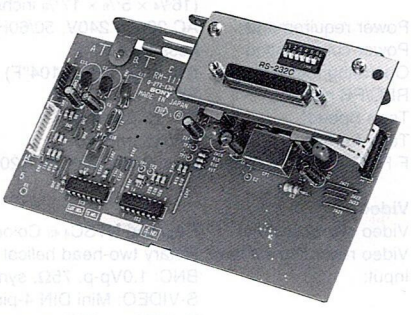



## SVBK-120

**Computer interface board for SVO-9620/9500MDP and SVP-9020**

•Provides RS-232C interface which enables direct control of a VTR from an external computer

Connector: D-sub 25-pin multi connector (1)
Parallel control signal
Dimensions: 168(W) × 92(H) × 60(D)mm
($6^5/_8 \times 3^5/_8 \times 2^3/_8$inches)
Mass: 300g (11 oz)

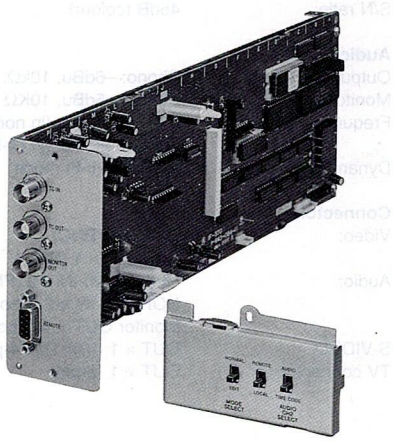



## SVBK-140

**Sony RS-422A interface board for SVO-9620 and SVP-9020**

•By installing this board, the SVO-9620/ SVP-9020 can be equipped with 9-pin REMOTE (RS-422A) interface to be configured into Sony's 9-pin based control system

Input/output connector:
TC IN: BNC × 1
0dB±6dB (0dB=1.55Vp-p)
10kΩ, unbalanced
TC OUT: BNC × 1
0dB±3dB, low impedance, unbalanced
MONITOR OUT: BNC × 1
Supplied accessories: Screw
Operation manual

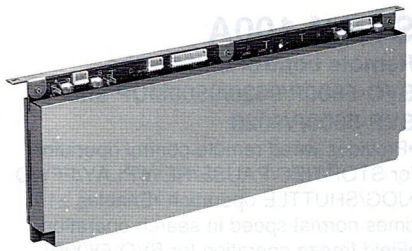


## SVBK-150

**Sony digital noise reducer board for SVO-9620 and SVP-9020**

•Reduces both Y (luminance) and C (chrominance) noise with its YNR (noise reducer) and CNR
•Provides Y Enhance function, TBS (Time Base Stabilizer), and Field dropout compensation

Dimensions: 318 (W) × 106 (H) × 26 (D)mm ($12^{5}/_{8} \times 4^{1}/_{4} \times 1^{1}/_{16}$ inches)
Mass: 370g (13 oz)
Supplied accessories:
Operation manual

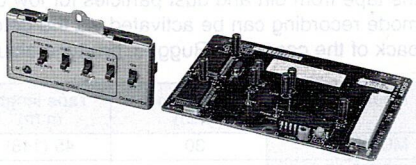


## SVBK-160

**Sony time code board for SVO-9620 and SVP-9020**

•Attaches to the SVBK-140 RS-422A Interface Board
•When this board installed, the VTR can record (SVO-9620 only) and read the EBU time code
•Consists of the following components: TC-69 board/Switch panel/Flat cable

Applicable time code:
SMPTE or EBU longitudinal time code (LTC)
Drop frame (NTSC mode only):
Drop frame or non-drop frame selectable
Dimensions: Board:
118.5 (W) × 85 (H) × 10 (D)mm ($4^{3}/_{4} \times 3^{3}/_{8} \times 1^{3}/_{32}$ inches)
Panel:
85 (W) × 52.5 (H) × 13 (D)mm ($3^{3}/_{8} \times 2^{1}/_{8} \times 1^{7}/_{32}$ inches)
Mass: Board: 80g (2.8 oz)
Panel: 70g (2.5 oz)

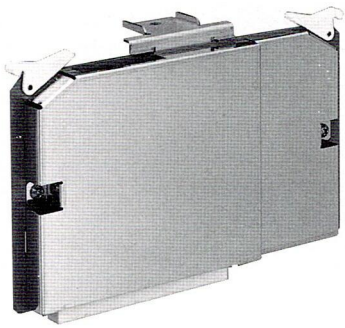


## SVBK-170P

**Component output board for SVO-5800P/SVP-5600P**

•When this board is installed, the VTR can output component video signal (Y/R-Y/B-Y), which conforms to the Betacam SP format

Dimensions: 177(W) × 105(H) × 20(D)mm ($7 \times 4^{1}/_{4} \times {}^{3}/_{32}$ inches)
Mass: 120g (4.2 oz)

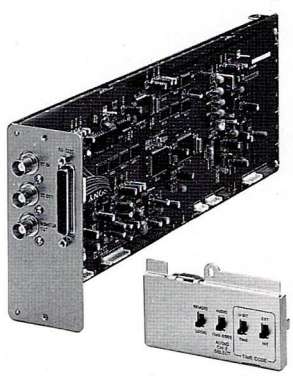


## SVBK-180P

**RS-232C interface board for SVO-9620 and SVP-9020**

•Provides an RS-232C interface which enables direct control of a VTR from an external computer •Incorporates an EBU standard time code generator/reader •Built-in editing capability (insert/assemble) •Built-in intelligence to support frame by frame editing capability •Capable of changing its communication protocol to the same as that of the SVBK-120 Interface Board

Connector: RS-232C I/F: D-sub 25-pin (1)
Time Code out: BNC (1)
Time Code in: BNC (1)
Monitor out: BNC (1)
Dimensions: Board: 62(W) × 115(H) × 361(D)mm ($2^{1}/_{2} \times {}^{5}/_{8} \times 14^{1}/_{4}$ inches)
Rear panel: 85(W) × 52.5(H) × 13(D)mm ($3^{3}/_{8} \times 2^{1}/_{8} \times 1^{7}/_{32}$ inches)



## SVRM-100A

**Remote control unit for the SVO-5800P/9620/9500MDP and SVP-5600P/9020**

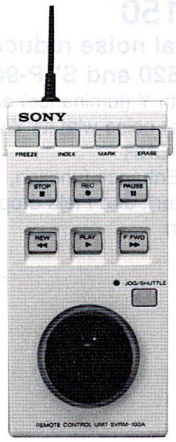
•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD •JOG/SHUTTLE operation •Enables ±10 times normal speed in search operation •Field freeze operation for SVO-5800P/SVP-5600P

**Features especially for the SVO-9500MDP**

•Index search function •Three freeze mode: frame freeze, first field freeze and second field freeze

### Specifications

| | |
|---|---|
| Power requirements: | DC 5V (supplied from the VTR) |
| Power consumption: | 40mW |
| Remote control: | Stereo mini plug |
| Control signal: | Control S |
| Dimensions: | 90(W) × 39(H) × 182(D)mm ($3^5/_8 \times 1^9/_{16} \times 7^1/_4$ inches) |
| Mass: | 250g (8.8 lb) |




## MQSE series S-VHS Videocassette

•Metal particle tape for S-VHS recording •Anti-static lid to protect the tape from dirt and dust particles for low dropouts •S-VHS mode recording can be activated via the detection holes on the back of the cassette • Rugged, pro-type album case

| Model name | Playing time* (min) | Tape length m (ft) | Mass** g (lb.) |
|---|---|---|---|
| MQSE-30 | 30 | 45 (148) | 340 (0.75) |
| MQSE-60 | 60 | 88 (289) | 350 (0.77) |
| MQSE-120 | 120 | 173 (568) | 370 (0.81) |
| MQSE-180 | 180 | 258 (847) | 390 (0.86) |

* Playing time = SP mode
**With case

# SVO-1500P

## VHS Hi-Fi recorder

•Double Azimuth 4-head design for clear slow and freeze pictures •VHS Hi-Fi stereo sound •Auto repeat playback capability •One-time playback capability •Dual-mode shuttle ring control •Auto tracking function to eliminate the need for manual adjustment •Auto power-on, Auto rewind and Auto power-off eject functions for operational convenience •NTSC recording/playback capability •Auto-head cleaner •Key inhibit and Remote-off modes •Control-S IN/OUT terminals for remote operation with the optional RM-V200 remote control unit or multiple VTR operation •BNC video IN/OUT connectors •Camcorder friendly design of audio/video connectors on the front panel •Burglar-proof hook •Supplied wireless remote commander RMT-V139 for remote operation

| | |
|---|---|
| Supplied accessories: | Wireless remote commander RMT-V139A<br>Size AA batteries<br>AC power cord<br>Operation manual |
| Optional accessories: | Wired/wireless remote control unit RM-V200 |

## Specifications

**General**

| | |
|---|---|
| Mass: | 5.3kg (11 lb 8 oz) |
| Dimensions: | 430(W) × 91(H) × 368(D)mm (17 × 3 5/8 × 14 1/2 inches) |
| Power requirements: | AC 220V to 240V, 50/60Hz, 3 wire grounded receptacle |
| Power consumption: | 19W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (-4 to 140°F) |
| Videocassette: | E-240/120, T-160/120/60/30 |
| Tape speed: | SP: 23.39mm/s<br>LP: 11.70mm/s |
| REC & PB mode: | SP/LP recording (PAL), SP/EP recording (NTSC)<br>SP/LP playback (PAL), SP/LP/EP playback (NTSC) |
| Tape format: | VHS |
| F FWD and REW time: | Less than 4 min 30s (with E-240) |

**Video**

| | |
|---|---|
| Video signal: | PAL (colour)/ CCIR (monochrome) |
| Video recording system: | Rotary two-head helical scanning |
| Input: | BNC × 1: 1.0Vp-p, 75Ω, unbalanced, sync negative<br>Phono × 1: 1.0Vp-p, 75Ω, unbalanced, sync negative |
| Output: | BNC × 1: 1.0Vp-p, 75Ω, unbalanced, sync negative<br>Phono × 1: 1.0Vp-p, 75Ω, unbalanced, sync negative |
| Horizontal resolution: | More than 220TV lines |
| S/N ratio: | More than 42dB (in SP mode) |

**Audio**

| | |
|---|---|
| Audio recording system: | Rotary two-head Hi-Fi system |
| Input: | Phono × 2 (L/R, Front): –7.5dBu, 47kΩ balanced<br>Phono × 2 (L/R, Rear): –7.5dBu, 47kΩ balanced |
| Output: | Phono × 2 (L/R, Front): –7.5dBu, 47kΩ balanced<br>Phono × 2 (L/R, Rear): –7.5dBu, 47kΩ balanced |
| Microphone: | –60dBu, 600Ω, unbalanced |
| Headphone: | Stereo mini jack |
| Frequency response: | 20Hz to 20kHz (in SP mode) |
| Distortion: | Less than 0.5% (in SP mode) |
| Dynamic range: | More than 90dB |

**Others**

| | |
|---|---|
| Control-S (Input): | Mini jack × 1 |
| Control-S (Output): | Mini jack × 1 |

**Wireless Remote Commander**

| | |
|---|---|
| Remote control system: | Infrared control |
| Command mode: | VTR-3 |
| Power requirement: | AA (R6) batteries |
| Dimensions: | 40(W) × 175(H) × 18(D)mm (1 5/8 × 7 × 2 3/32 inches) |
| Mass: | 59g (2 oz) |

# RM-V200

## Wired/wireless remote control unit

•VTR operation: STOP/PLAY/REC/PAUSE/FWD SEARCH/REW SEARCH/FF/REW/EJECT/POWER ON & OFF •High speed rewind button/ ×2speed playback/ frame advance operations for SVO-1500P •Either Control S or Control P control signal selectable

Supplied accessories: Size AA battery × 2
Control S cable (3m)
Control P cable (1.5m)
Operation manual

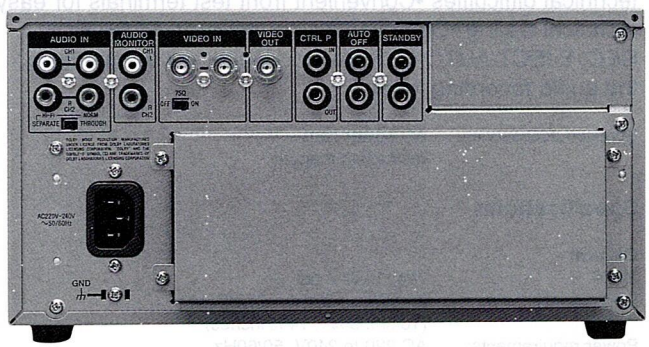
| | |
|---|---|
| Mass: | 105g (3 oz) excluding batteries |
| Dimensions: | 65 (W) × 18 (H) × 150 (D)mm ($2^{5}/_{8} \times 2^{3}/_{32} \times 6$ inches) |
| Power requirements: | DC 3V |
| Operating temperature: | 5 to 45°C (41 to 113°F) |
| Control signal: | Control S (SIRCS)<br>Control P (Inverted SIRCS) |

# SVO-965P

VHS Hi-Fi

## VHS Hi-Fi duplicator for recording/playback

•Provides both recording and playback modes •High cocentration of Silicon is incorporated in the lower drum for improved wear durability •Long-life video Hi-Fi head •High quality picture and sound by wide video/audio track design •Quality construction and durable mechanism for highly reliable operation •Low power consumption of 25W •Compact size and lightweight •Control P IN/OUT connectors for loop-through connection •Loop-through audio/video connectors for simpler system connection •Control S IN connector for VTR operation checking •Automatic check function for reliable recording results (operated from SVRM-901/SVRM-960) •Data set function: VTR ID SET, ID code REC ON/OFF, ID code display ON/OFF, video AGC ON/OFF, audio limiter ON/OFF, Hi-Fi REC ON/OFF etc. •Auto off function for technical difficulties •Convenient front test terminals for easy technical testing •Operation status indicator: TAPE RUN, REC, EJECT/ AUTO OFF




Supplied accessories: AC power cord
Instruction manual

## Specifications

**General**

| | |
|---|---|
| Mass: | 7kg (15 lb 7 oz) |
| Dimensions: | 270(W) × 132(H) × 370(D)mm ($10^3/_4 \times 5^1/_4 \times 14^5/_8$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 25W |
| Storage temperature: | –20 to 60°C (–41 to 140°F) |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Tape speed: | 23.39mm/s (SP mode) |
| F FWD and REW time: | Within 2.5min (with Sony E-180 tape) |
| Videocassette: | VHS standard cassette tapes |

**System**

| | |
|---|---|
| Video signal system: | CCIR standard/PAL colour |
| Video recording system: | Rotary two-head Azimuth recording, VHS standard<br>Luminance: FM recording<br>Colour signal: Converted subcarrier phase shift recording |
| Audio recording system: | Hi-Fi audio: Rotary two-head helical scanning system<br>Normal audio: Stationary head |

**Video**

| | |
|---|---|
| Input: | Composite video: BNC with loop-through output, 1Vp-p, 75Ω switchable, unbalanced, sync negative |
| Output: | Composite video: BNC, 1Vp-p, 75Ω, unbalanced, sync negative |
| Horizontal resolution: | More than 240TV lines |
| S/N ratio: | Better than 44dB |

**Audio**

| | |
|---|---|
| Input: | SEPARATE/THROUGH switch selectable*<br>Hi-Fi (CH-1/CH-2): Phono (×2)<br>Normal (CH-1/CH-2): Phono (×2) |
| Audio level: | –10dBu, 47kΩ, unbalanced |
| Output: | Phono (×2) |
| Audio level: | –10dBu, 47kΩ, unbalanced |
| S/N ratio (Dolby off): | 43dB (Normal audio) |
| Dynamic range: | Better than 90dB (Hi-Fi audio) |
| Frequency response: | Normal: 50Hz to 10kHz<br>Hi-Fi: 20Hz to 20kHz |
| Audio level adjustment: | Manual (4ch)<br>Limiter on/off selectable (Normal audio) |

**Remote control**

| | |
|---|---|
| Control S: | IN: Mini jack |
| Control P: | IN: Phono<br>OUT: Phono |

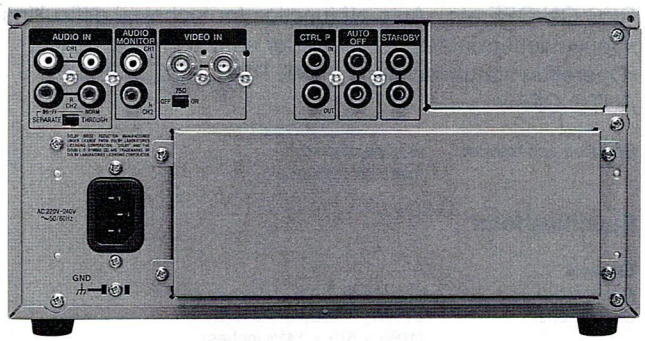
* When switch is in THROUGH position, loop-through output is available

# SVO-915P

VHS Hi-Fi

## VHS Hi-Fi duplicator for recording

•Provides recording mode only for large size duplication system •High concentration of Silicon is incorporated in the lower head drum scanner for improved wear durability •Long-life video/Hi-Fi head •Quality construction and durable mechanism for highly reliable operation •High quality picture and sound by wide video/audio track design •Low power consumption of 25W •Compact and light-weight •Control P IN/OUT connectors •Loop-through audio/video connectors for simple system connection •Control S IN connector for VTR operation checking •Data set function: VTR ID SET, ID code REC ON/OFF, ID code display ON/OFF,video AGC ON/OFF, audio limiter ON/OFF, Hi-Fi REC ON/OFF, Dolby NR ON/OFF etc. •Auto off function for technical difficulties •Convenient front test terminals for easy technical testing •Operation status indicator: TAPE RUN, REC, EJECT/AUTO OFF •Audio monitor out for checking the audio recording level




Supplied accessories: AC power cord
Instruction manual

## Specifications

**General**

| | |
|---|---|
| Mass: | 7kg (15 lb 7 oz) |
| Dimensions: | 270(W) × 132(H) × 370(D)mm<br>($10^3/_4 \times 5^1/_4 \times 14^5/_8$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 25W |
| Storage temperature: | –20 to 60°C (–41 to 140°F) |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Tape speed: | 23.39mm/s (SP mode) |
| F FWD and REW time: | Within 2.5min (with Sony E-180 tape) |
| Videocassette: | VHS standard cassette tapes |

**System**

| | |
|---|---|
| Video signal system: | CCIR standard/PAL colour |
| Video recording system: | Rotary two-head Azimuth recording, VHS standard<br>Luminance: FM recording<br>Colour signal: Converted subcarrier phase shift recording |
| Audio recording system: | Hi-Fi audio: Rotary two-head helical scanning system<br>Normal audio: Stationary head |

**Video**

| | |
|---|---|
| Input: | Composite video: BNC with loop-through output, 1Vp-p, 75Ω switchable, unbalanced, sync negative |
| Horizontal resolution: | More than 240TV lines |
| S/N ratio: | Better than 44dB |

**Audio**

| | |
|---|---|
| Inputs: | SEPARATE/THROUGH switch selectable*<br>Hi-Fi (CH-1/CH-2): Phono (×2)<br>Normal (CH-1/CH-2): Phono (×2) |
| Input level: | –10dBu, 47kΩ, unbalanced |
| Outputs: | Phono (×2) |
| Output level: | –10dBu, 47kΩ, unbalanced |
| S/N ratio (Dolby off): | 43dB (Normal audio) |
| Dynamic range: | Better than 90dB (Hi-Fi audio) |
| Frequency response: | Normal: 50Hz to 10kHz<br>Hi-Fi: 20Hz to 20kHz |
| Audio level adjustment: | Manual (4ch)<br>Limiter on/off selectable (Normal audio) |

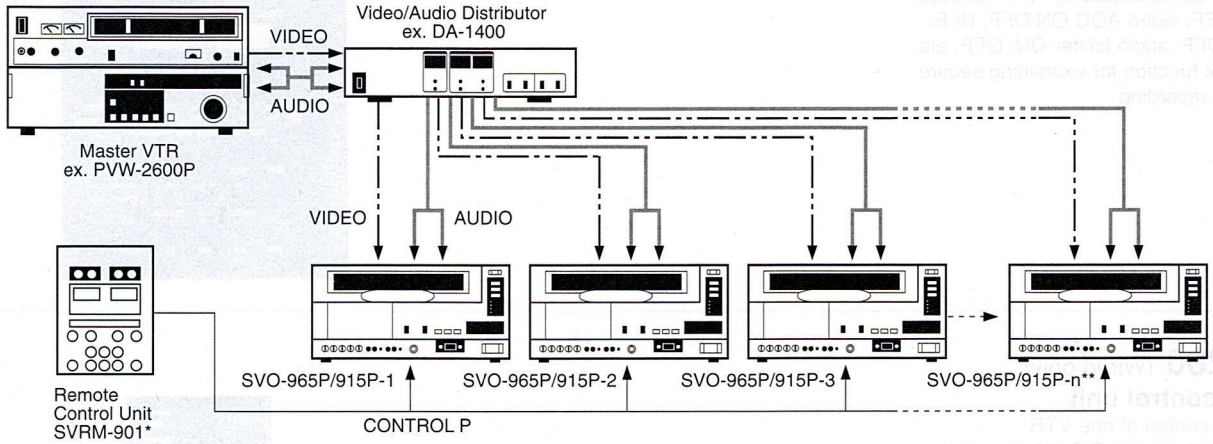
**Remote control**

| | |
|---|---|
| Control S: | IN: Mini jack |
| Control P: | IN: Phono<br>OUT: Phono |

* When switch is in THROUGH position, loop-through output is available

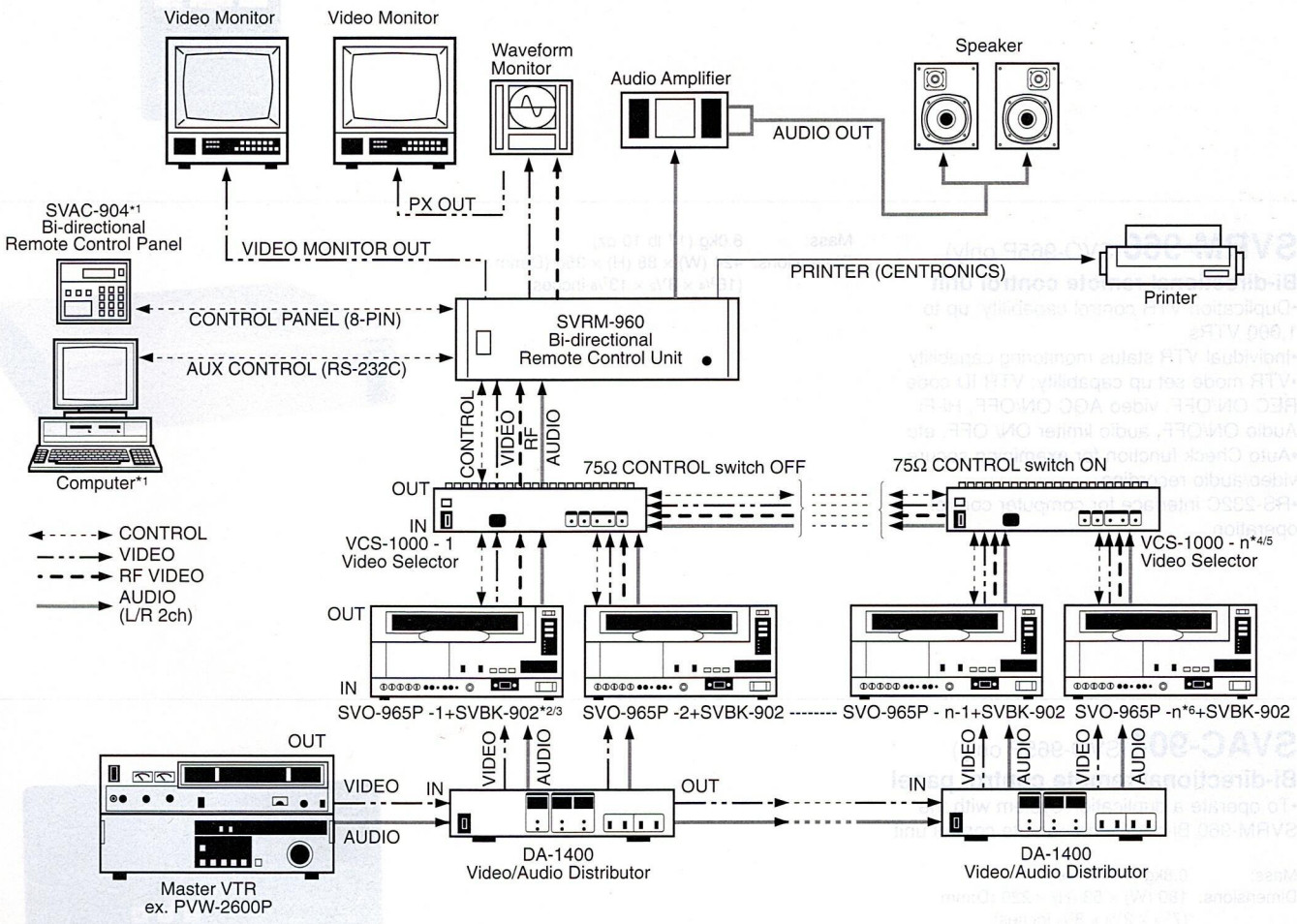
## System Configuration

**• Controlled by the SVRM-901**




* RM-V200 Remote Control Unit can also be used for a master remote control unit.
** Up to 2000VTRs can be connected.

**• Controlled by the SVRM-960 (SVO-965P only)**

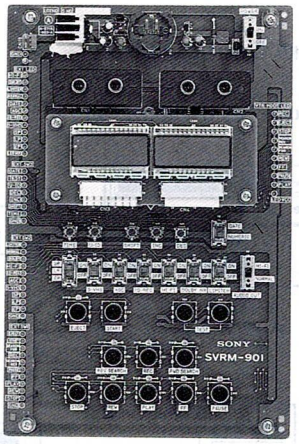



*1 VTR control can be operated either from the SVAC-904 or an external computer.
*2 SVBK-902 Bi-directional Interface Board (optional) must be installed in the SVO-965P.
*3 Set the 75Ω switch on all the SVBK-902 used in a system to OFF.
*4 Set the 75Ω switch on the last VCS-1000 to ON.
*5 Up to 50 VCS-1000 can be connected.
*6 Up to 1000 VTRs can be connected.

## SVRM-901

### Serial remote control board

•Control P out connectors for controlling entire duplication VTRs: up to 2,000 VTRs
•System management capability
•VTR mode set up capability: VTR ID code REC ON/OFF, video AGC ON/OFF, Hi-Fi Audio ON/OFF, audio limiter ON/ OFF, etc.
•Auto Check function for examining secure video/audio recording




## RM-V200 (Wired only)

### Remote control unit

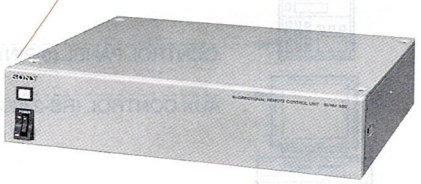
•For simple control of one VTR
•Equipped with control P/S select switch
•Duplication control capability via control P output

## SVRM-960 (SVO-965P only)

### Bi-directional remote control unit

•Duplication VTR control capability: up to 1,000 VTRs
•Individual VTR status monitoring capability
•VTR mode set up capability: VTR ID code REC ON/OFF, video AGC ON/OFF, Hi-Fi Audio ON/OFF, audio limiter ON/ OFF, etc.
•Auto Check function for examining secure video/audio recording
•RS-232C interface for computer control operation

Mass: 8.0kg (17 lb 10 oz)
Dimensions: 424 (W) × 88 (H) × 350 (D)mm ($16^{3}/_{4} \times 3^{1}/_{2} \times 13^{7}/_{8}$ inches)

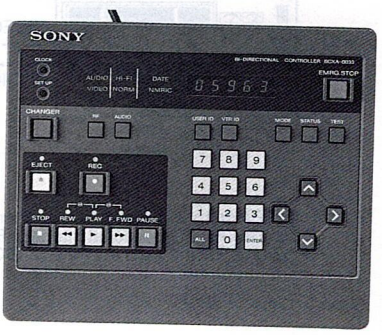


## SVAC-904 (SVO-965P only)

### Bi-directional remote control panel

•To operate a duplication system with the SVRM-960 Bi-directional remote control unit

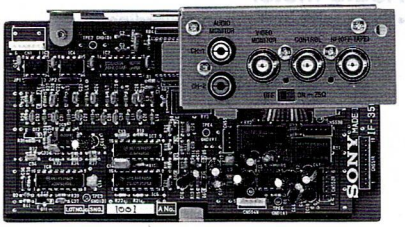
Mass: 0.8kg (1 lb 12 oz)
Dimensions: 180 (W) × 53 (H) × 220 (D)mm ($7^{1}/_{8} \times 2^{1}/_{8} \times 8^{3}/_{4}$ inches)



## SVBK-902 (SVO-965P only)

**Bi-directional interface board**

•To enable two way communication between duplication VTRs and the SVRM-960

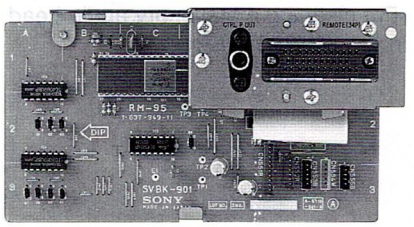



## SVBK-901

**34-pin parallel interface board**

•To meet 34-pin based control system

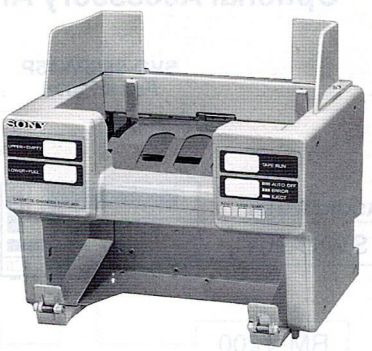
•Control P serial control signal output connector




## SVCC-960

**Automatic cassette changer**

•Automatic cassette loading and ejecting for efficient duplication operation: Up to 5 cassettes

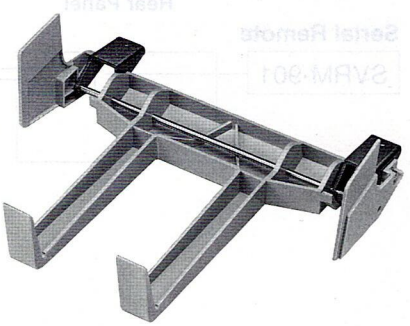



## SVAC-902

**Cassette holder**

•To hold cassettes ejected by the SVCC-960

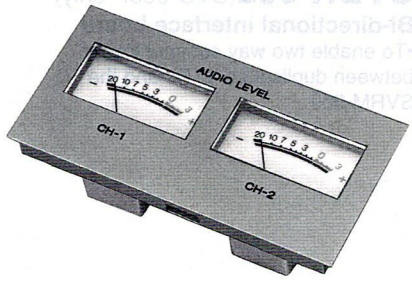
•Using with the SVCC-960



## SVAC-901

**Audio meter**

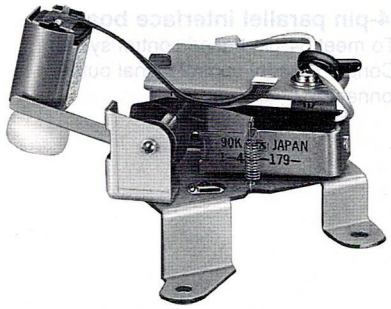
•For monitoring audio recording level



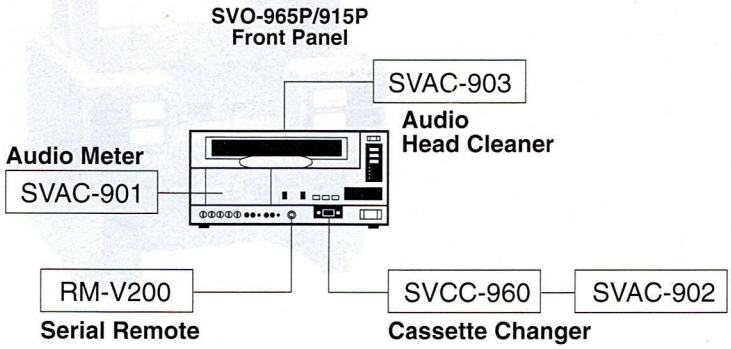

## SVAC-903

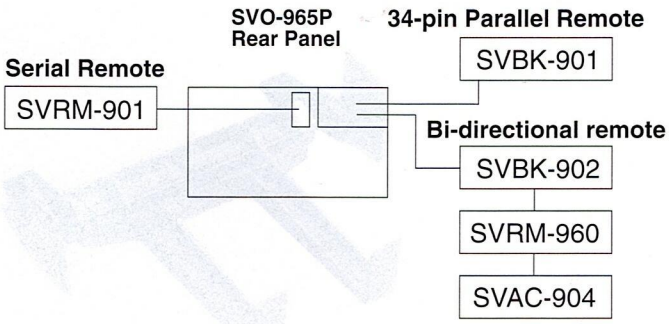
**Audio head cleaner**

•For cleaning a stationary audio head in the SVO-965P/915P




## Optional Accessory Allocations

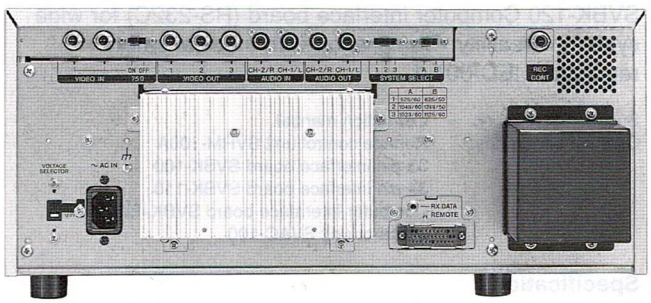


# VO-9600H

## High resolution B/W videocassette recorder

•High quality picture reproduction by utilizing the SP U-matic technology •Multiple scanning system for universal applications •Clear still picture •REC standby function for immediate recording operation •High speed picture search in the range of ±30 times normal speed by a Search Dial •Control S IN and Sony 33-pin remote interface to meet a wide range of applications •Quick start function for immediate VTR operation •Three video out connectors for easy system expansion •Audio recording capability •Real time counter •Compliance with medical safety regulations: UL-544 and IEC-601-1




Supplied accessories: KSP-60 SP U-matic videocassette
Instruction manual
AC power cord

## Specifications

### General

Recording system: Two rotary heads helical scanning system
Scanning system (lines/Hz):
525/60, 625/50, 1023/60, 1049/60, 1125/60, 1249/50 selectable
Operating temperature: 5 to 40°C (41 to 104°F)
Power requirements: AC 220 to 240V
Power consumption: Less than 70W
Dimensions: 424 (W) × 192 (H) × 544 (D)mm
($16^{3}/_{4} \times 7^{5}/_{8} \times 21^{1}/_{2}$ inches)
Mass: 7.5kg (16 lb 9 oz)

### Video signal

Input: 1.0Vp-p, 75Ω (with termination switch), sync negative
Output: 1.0Vp-p, 75Ω, sync negative
S/N ratio & Horizontal resolution:
46dB, 480 lines (525/60)
43dB, 480 lines (625/50)
46dB, 240 lines (1023/60)
46dB, 240 lines (1049/60)
46dB, 220 lines (1125/60)
43dB, 240 lines (1249/50)

### Audio signal

Input (0dBu=0.775Vrms):
LINE IN: –10dBu, 47kΩ, unbalanced
MIC IN: –60dBu, 3kΩ, unbalanced
–10dBu, 47kΩ, unbalanced
Output (0dBu=0.775Vrms):
LINE OUT: –5dBu at 47kΩ, unbalanced
Headphones: –24dBu to –46dBu at 8Ω headphones
S/N ratio: 48dB
Frequency response: 50Hz to 15kHz

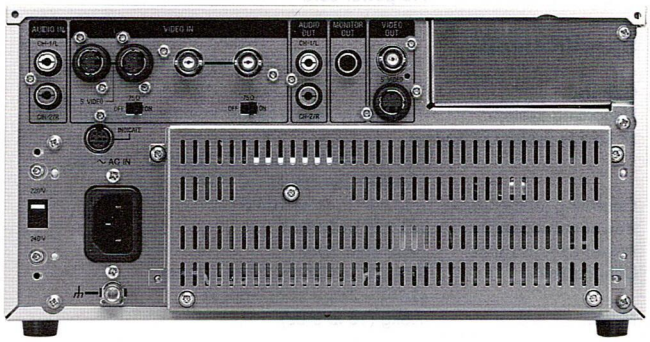
### Tape transport

Tape speed: 9.53mm/s
REC/PB time: 60min
Videocassette: KSP/KSP-S series videocassette

# SVO-9500MDP

## S-VHS videocassette recorder

•High quality picture and sound by S-VHS format and wide video/audio track design •Digital Chroma Noise Reducer (CNR) to provide highly stable picture •Clear and crisp freeze pictures in either frame or field mode thanks to built-in digital frame memory •Quality construction and durable mechanism for highly reliable operation •Quick response mechanism for immediate operation •±10 times picture search •Blank search function for quick searching of blank part on the tape •Index search function for rapid point location •Programmed operation •Tape remain indicator to show the amount of tape remaining •Auto head cleaner •Compact size and lightweight •Hi-Fi stereo audio recording system •Hi-Fi ON/OFF switch •VTR mode setting menu •SVRM-100A optional remote control unit •SVBK-100 33-pin interface board/SVBK-110 34-pin interface board/ SVBK-120 Computer interface board (RS-232C) for wide system versatility •Compliance with medical safety regulation: IEC-601-1



| | |
|---|---|
| Supplied accessory: | Instruction manual |
| Optional accesories: | Remote control unit SVRM-100A |
| | 33-pin interface board SVBK-100 |
| | 34-pin interface board SVBK-110 |
| | Computer interaface board SVBK-120 |
| | Indicator unit SVAC-100 |

## Specifications

**General**

| | |
|---|---|
| Video recording system: | Two rotary heads helical scanning system |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220V/240V (selectable), 50/60Hz |
| Power consumption: | Less than 64W |
| Dimensions: | 270 (W) × 144 (H) × 370 (D)mm ($10^{3}/_{4} \times 5^{3}/_{4} \times 14^{5}/_{8}$ inches) |
| Mass: | 12kg (26 lb 7 oz) |

**Video signal**

| | |
|---|---|
| Input: | BNC: 1.0Vp-p, 75Ω, sync negative |
| | S-VIDEO: Mini DIN 4-pin |
| | Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p, 75Ω |
| Output: | BNC: 1.0Vp-p, 75Ω, sync negative |
| | S-VIDEO: Mini DIN 4-pin |
| | Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p, 75Ω |
| S/N ratio: | Better than 45dB |

**Audio signal**

| | |
|---|---|
| Input: | LINE IN: CH-1/CH-2: –10dBu, 47kΩ, unbalanced |
| | Microphone: CH-2: –60dBu, 3kΩ, unbalanced |
| Output: | LINE OUT: CH-1/CH-2: –10dBu, 47kΩ, unbalanced |
| | Monitor out: –5dBu, 47kΩ, unbalanced |
| S/N ratio: | 40dB (standard) |
| Dynamic range: | Better than 90dB (Hi-Fi) |
| Frequency response: | 50Hz to 10kHz (standard), 20Hz to 20kHz (Hi-Fi) |

**Tape transport**

| | |
|---|---|
| Tape speed: | 23.39mm/s |
| F FWD and REW time: | 2.5min (E-180) |
| Videocassette: | VHS standards cassette tapes |

**1. Colour video cameras**
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# DXC-D30P series

## 3-chip colour video camera

•Incorporates DSP(Digital Signal Processing) technology based on the TruEye™ •Directly dockable to analogue recorders (PVV-3P and EVV-9000P) •Directly dockable to the DSR-1P DVCAM Digital Recorder •Compact size, lightweight and low power consumption •High density three 2/3-inch IT Power HAD sensors and the new digital signal processing circuits offer superior picture quality
— 850 TV lines of horizontal resolution
— Excellent signal-to-noise ratio of 61dB
— High sensitivity of F11.0 at 2000 lx
— Smear level -125dB
•TruEye Process realizes faithful color reproduction •High degree of stability in video output (offered by DSP) •Uniformity of picture tone among multiple DXC-D30P units (offered by DSP) •Skin Detail with auto detection system of active area •Horizontal detail frequency control •Red vertical detail correction •New DCC Plus function on the basis of DynaLatitude processing - for ideal video level distribution in any situations •Clean Detail by DSP provides Black Halo-free natural lines •Clear Scan function for shooting computer displays without horizontal bands appearing across display screen •Hyper Gain mode provides the combined effect of +30dB of electronic gain-up and +6dB of DPR (Dual Pixel Readout) under 1 lux illumination •DPR (Dual Pixel Readout) technology realizes noiseless picture even when gain value is increased •TLCS (Total Level Control System) to ensure the correct exposure even under/ over the limits of automatic iris control •Intelligent Auto Iris control function •EZ Mode and EZ Focus functions enable cameramen to get ready for shooting swiftly •Easy-to-use File Management System (Five factory files and three user files available) •The 10-pin REMOTE connector (RS-232C standard) allows control from external computers •ATW (Auto Tracing White Balance) function automatically adjusts white balance when lighting conditions change •Programmable gain mode allows precise gain selection from 8 gain values •Three mode auto iris system- STD (Standard), BACK L(Back Light) and SPOT L(Spot Light) •DCC (Dynamic Contrast Control) circuit can reproduce 600% dynamic range •Variable Speed Electronic Shutter •Clear Scan•Supplies a 1kHz audio reference signal simultaneously with the colour bar signal •Date and time can be superimposed on the video signal •Directly dockable with DSR-1P DVCAM Digital Recorder (Refer to the description of the DSR-130P) •Directly dockable with the PVV-1AP/3P for high quality component acquisition (Refer to the description of PVW-D30P) or with the EVV-9000P for handy operation •Can be combined with the recorders from Panasonic or JVC via the CA-512AP or CA-513 •When combined with CA-537P/327P, 26/14-pin connectors provides signal output in Y/R-Y/B-Y, VBS, Y/C and RGB forms for connection with various equipement •Can be connected with computer equipment via CA-325A/325B camera adaptor •The DXF-701CE a remarkable 600TV lines of horizontal resolution •V-DTL signal is mixed to the VF's video signal for easy focusing (VF Super Detail) •Safety zone and centre marker indications in viewfinder •The VCL-916BYA aspherical lens allows a wider angle of view and reduced ghost and flare •Adjustable shoulder pad •Monitor out function

Supplied accessories: Wind screen
Lens mount cap
Chart for flange focal
Operating instructions

## Specifications

**General**

| | |
|---|---|
| Image device: | 2/3–inch Interline Transfer CCD (×3)<br>795(H) × 596(V) total picture elements<br>752(H) × 582(V) effective picture elements |
| Built-in filters: | 1: 3200K, 2: 5600K + 1/8ND, 3: 5600K,<br>4: 5600K+1/64ND |
| Lens mount: | Bayonet-mount |
| Video signal system: | PAL standard |
| Sync system: | Internal or external with VBS or BS |
| Horizontal resolution: | 850TV lines |
| Minimum illumination: | 0.5 lx with F1.4, Hyper Gain (DPR+30dB)<br>0.8 lx with F1.8, Hyper Gain (DPR+30dB) |
| Sensitivity: | F11.0 at 2000 lx (3200K, 89.9% reflectance)(typical) |
| Gain selection: | –3dB, 0dB, +3dB, +6dB, +9dB, +12dB, +18dB,<br>* DPR+18dB, +24dB, * DPR+24dB,<br>Hyper Gain (* DPR+30dB) |
| S/N ratio: | 61dB (typical) |
| Power requirements: | DC12V |
| Power consumption: | 12W (without VF/CA-537P) |
| Operating temperature: | –10 to 45°C (14 to 113°F ) |
| Mass: | Approx. 2.3kg (5 lb 1 oz, for camera head only)<br>Approx. 4.3kg<br>(9 lb 8 oz, with VF and lens, w/o lens hood) |

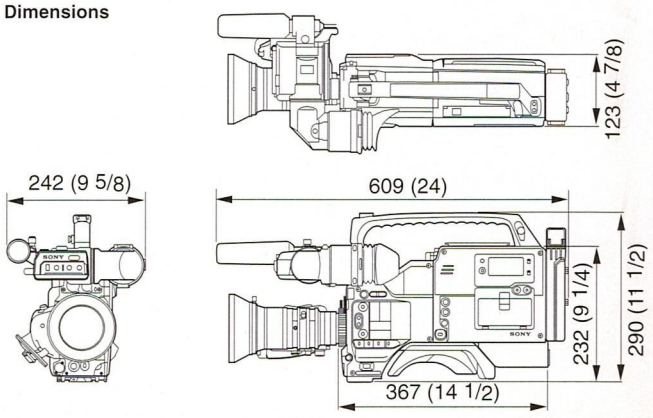
**Inputs/outputs**

| | |
|---|---|
| INTERFACE: | Pro 50-pin |
| VIDEO OUT: | BNC type |
| LENS: | 12-pin |
| VF: | DIN 8-pin |
| REMOTE: | 10-pin |
| MONITOR OUT: | BNC type |

* DPR = +6dB, DPR +18dB = +24dB, DPR+24dB = +30dB, DPR+30dB = +36dB

| | DXC-D30PF | DXC-D30PK | DXC-D30PL | DXC-D30PH |
|---|---|---|---|---|
| Camera head | Yes | Yes | Yes | Yes |
| Camera handle | Yes | Yes | Yes | Yes |
| DXF-701CE Viewfinder | Yes | Yes | Yes | Option |
| External microphone | Yes | Yes | Yes | Not available |
| VCT-U14 Tripod adaptor | Yes | Yes | Yes | Option |
| VCL-916BYA Zoom lens | Yes | Yes | Yes | Option |
| LC-421 Carrying case | Yes | Option | Option | Option |

**Dimensions**



# DXC-637P series

## 3-chip colour video camera

•PVW-637P perfect camcorder operation with the PVV-3P
•Compact size, lightweight and low power consumption
•High density three 2/3-inch IT Hyper HAD sensors, Sony's original spatial offset technology and improved electronic circuit offer superior picture quality
— 800 TV lines of horizontal resolution
— Excellent signal-to-noise ratio of 61dB
— High sensitivity of F8.0 at 2000 lx
•Smear almost negligible due to the HAD sensor structure and OCL layer of the Hyper HAD sensor •The 2-dimensional optical low pass filter and Digital IE circuit suppress aliasing/spurious phenomenon •The detail limiter effectively reduces unsmooth diagonal edges appeared on highly contrasted object (Clean Detail) •Clear Scan function for shooting computer displays without horizontal bands appearing across display screen •Hyper Gain mode provides the combined effect of +30dB of electronic gain-up and +6dB of DPR (Dual Pixel Readout) under 1 lux i llumination •DPR (Dual Pixel Readout) technology realizes noiseless picture even when gain value is increased •EZ Mode and EZ Focus functions enable cameramen to get ready for shooting swiftly •DCC (Dynamic Contrast Control) circuit can reproduce 600% dynamic range •DCC plus provides excellent colour reproduction even at the high luminance level •EVS (Enhanced Vertical Difinition System) realizes a remarkable vertical resolution of 530TV lines •ATW (Auto Tracing White Balance) function automatically adjusts white balance when lighting conditions change •Programmable gain mode allows precise gain selection from 8 gain values •Three modes of matrix- STD (Standard), H.SAT (High Saturation), and FL (Fluorescent light ) are provided to change the chroma saturation and hue •Three mode auto iris system- STD (Standard), BACK L(Back Light) and SPOT L(Spot Light) •Variable Speed Electronic Shutter •Supplies a 1kHz audio reference signal simultaneously with the colour bar signal •Date and time can be superimposed on the video signal •Can be coupled directly with the PVV-1AP/3P for high quality component acquisition or with the EVV-9000P for handy operation •Can be combined with the recorders from Panasonic or JVC via the CA-512 or CA-513 •When combined with CA-537P/327P, 26/14-pin connectors provides signal output in Y/R-Y/B-Y, VBS, Y/C and RGB forms for connection with various equipement •Can be connected with computer equipment via CA-325A/325B camera adaptor •The VFs display PVV-3P's status, a remarkable 600TV lines of horizontal resolution •V-DTL signal is mixed to the VF's video signal for easy focusing (VF Super Detail) •Safety zone and centre marker indications in viewfinder •The VCL-916BYA aspherical lens allows a wider angle of view and reduced ghost and flare •Adjustable shoulder pad •Monitor out function

Supplied accessories: Wind screen
Lens mount cap
Chart for flange focal
Operating instructions

Camera adaptor is optional

## Specifications

**General**

| | |
|---|---|
| Image device: | 2/3–inch Interline Transfer CCD (×3)<br>816(H) × 606(V) total picture elements<br>786(H) × 581(V) effective picture elements |
| Built-in filters: | 1: 3200K, 2: Cross(3200K), 3: 5600K,<br>4: 5600K+1/16ND |
| Lens mount: | Bayonet-mount |
| Video signal system: | PAL standard |
| Sync system: | Internal or external with VBS or BS |
| Horizontal resolution: | 800TV lines |
| Minimum illumination: | 1 lx with F1.4, Hyper Gain (DPR+30dB)<br>1.5 lx with F1.8, Hyper Gain (DPR+30dB) |
| Sensitivity: | F8.0 at 2000 lx (3200K, 89.9% reflectance)(typical) |
| Gain selection: | –3dB, 0dB, +3dB, +6dB, +9dB, +12dB, +18dB,<br>* DPR+18dB, +24dB, * DPR+24dB,<br>Hyper Gain (* DPR+30dB) |
| S/N ratio: | 61dB (typical) |
| Power requirements: | DC12V |
| Power consumption: | 10.5W (without VF/CA-537P) |
| Operating temperature: | –10 to 45°C (14 to 113°F ) |
| Mass: | Approx. 2.3kg (5 lb 1 oz, for camera head only)<br>Approx. 3.6kg (7 lb 15 oz, with the CA-537P) |

**Inputs/outputs**

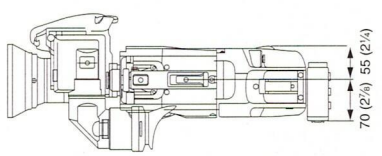
| | |
|---|---|
| INTERFACE: | DIN 50-pin |
| VIDEO OUT: | BNC type |
| LENS: | 12-pin |
| VF: | DIN 8-pin |
| REMOTE: | 10-pin |
| MONITOR OUT: | RCA type |

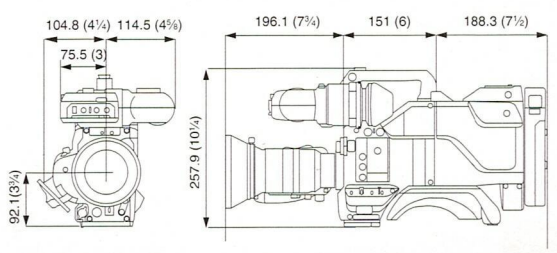
* DPR = +6dB, DPR +18dB = +24dB, DPR+24dB = +30dB, DPR+30dB = +36dB

| Composition \ Model | DXC-637PH | DXC-637PL | DXC-637PK |
|---|---|---|---|
| Camera head DXC-637P | Yes | Yes | Yes |
| Zoom lens VCL-916BYA | Option | Option | Yes |
| Viewfinder DXF-601CE | Option | Yes | Yes |
| External microphone | Option | Yes | Yes |
| Tripod adaptor VCT-U14 | Option | Yes | Yes |

**Dimensions**

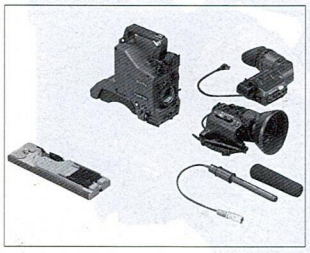
With optional camera adaptor



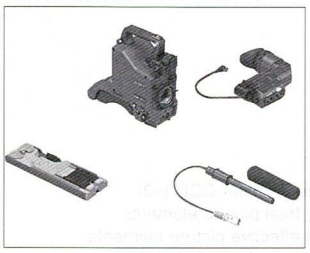



## Product configuration

### DXC-637K



### DXC-637L



### DXC-637H

# DXC-327BP series

**3-chip CCD colour video camera**

•Directly dockable not only with current analog VTR's/CA's but also with Digital Recorder (DSR-1P) •High sensitivity of F9.0 at 2000 lx and a low smear level (1/10 of the conventional camera) given by three Sony 1/2-inch IT Power HAD (Hole Accumulated Diode) sensors •700TV lines of horizontal luminance resolution thanks to the high density CCD chips (470,000 total picture elements/440,000 effective picture elements) and Sony's original spatial offset technology •The Power HAD sensor structure in combination with advanced electronic circuitry allows an excellent S/N ratio of •Electronic shutter equipped •2-line image enhancer for crisp image •Modular design allows choice of combo stand-alone or multi-camera use •Can be combined with the DSR-1P DVCAM Digial Recorder, allowing simple ClipLink function •Can be docked directly with the PVV-1AP/3P for high quality component acquisition •Can be combined with S-VHS recorders from Panasonic or JVC via the CA-512P or CA-513 Camera Adaptor •When cambined with CA-537P, 26-pin connector on camera adaptor provides signal output in Y/R-Y/B-Y, VBS, Y/C and RGB forms for connection with various equipment •The DXF-601CE: Diecast alminum body, 600TV lines of horizontal resolution, the large eye cup for easy viewing, external TALLY and a new dioptre mechanism for easier dioptre adjustment •Compact size, lightweight, and low power consumption •VCL-714BX cableless 14 × zoom lens •Convenient built-in microphone •Safety Zone and Centre Marker indications in viewfinder •Built-in character generator can generate letters and numbers for titles and dates •5 step auto iris override (+1F stop/+0.5F stop/Preset/ –0.5F stop/-1.0F stop) •Convenient gain-up function (0/+9/+18dB) •Zebra video level indication •Two memory white balance system •ABL (Automatic Black Level) function •RM-M7G remote connector on camera head for remote control in any configuration •Extended system versatility with optional CA-325AP/325B Camera Adaptors, RM-M7G Remote Control Unit, and CCU-M7P/M5P

## Specifications

**General**

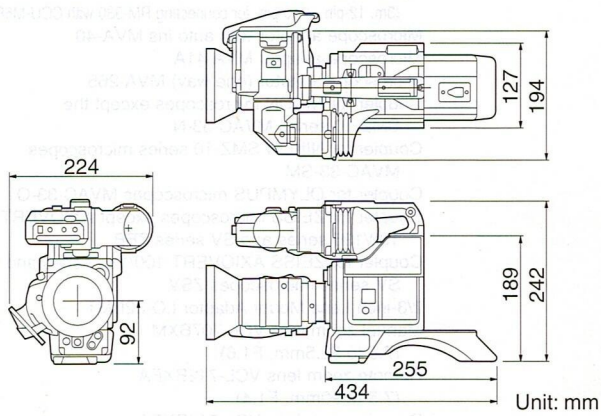
| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer CCD (×3),<br>795 (H) × 596 (V) total picture elements<br>752 (H) × 582 (V) effective picture elements |
| Electronic viewfinder: | 1.5-inch monochrome (except DXC-327BPH) |
| Lens: | F1.4, 7.5 to 90mm zoom lens with auto iris/macro mechanism (DXC-327BPF/327BPK) |
| Lens mount: | Bayonet-mount |
| Video signal system: | PAL standard |
| Horizontal resolution: | 700TV lines |
| Minimum illumination: | 6.0 lx with F1.4, +18dB |
| Sensitivity: | F9.0 at 2000 lx |
| Sync system: | Internal or external selectable |
| S/N ratio: | 61dB |
| Power requirements: | DC 12V |
| Power consumption: | 8.0W (without VF/CA-537P) |
| Operating temperature: | –5 to 45°C (23 to 113°F) |
| Mass: | 2.0kg (4 lb 6 oz, for camera head only)<br>3.3kg (7 lb 4 oz, with the CA-537P) |

**Inputs/Outputs**

| | |
|---|---|
| VTR/CCU/CMA: | Sony Z-type, 26-pin |
| VIDEO OUT: | BNC-type |
| GENLOCK: | BNC-type |
| MIC IN: | XLR-type, 3-pin |
| LENS: | Hot-shoe type or 6-pin (for 2/3-inch lens) |
| REMOTE: | 10-pin |
| VF: | DIN 8-pin |
| DC IN: | XLR-type, 4-pin |
| EARPHONE: | mini jack |
| INTERCOM: | mini intercom jack |

| Composition \ Model | DXC-327BPF | DXC-327BPK | DXC-327BPL | DXC-327BPH |
|---|---|---|---|---|
| Colour video camera head | Yes | Yes | Yes | Yes |
| Tripod adaptor VCT-U14 | Yes | Yes | Yes | Option |
| Viewfinder DXF-601CE | Yes | Yes | Yes | Option |
| Zoom lens VCL-714BX | Yes | Yes | Option | Option |
| Carrying case LC-421 | Yes | Option | Option | Option |

**Dimensions**



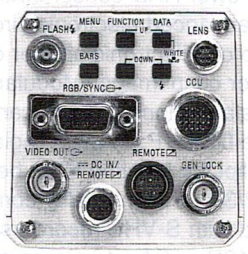

Unit: mm

# DXC-950P

## 3-chip CCD colour video camera

•Multi-purpose 3-CCD compact camera for versatile industrial video applications
•Newly developed 1/2-inch IT Power HAD sensor CCDs offer superb picture quality:
— Remarkably high horizontal resolution of 750TV lines
— Extremely high sensitivity of F8.5 at 2000 lx
— Excellent signal-to-noise ratio of 58dB
— Excellent colour reproduction
•Convenient operational functions including Flash Synchronization and Three-pattern Light Metering System •Various precise picture controls •Field or frame integration mode selectable •Remote control from the optional RM-C950/RM-930 Remote Control Unit or CCU-M5P Camera Control Unit •Built-in RS-232C serial interface •On-screen four divided menu with Memory Bank function for easy set-up •Digital control CCD IRIS function (equivalent to six F-stops) and AGC automatically adjusts a wide range of incoming light level •Alternative White Balance Control Modes - AWB, ATW (Trimming with R/B Paint function is possible) or manual (R/B gain level adjustment) •Minutely controlled electronic shutter speed - Manual speed selection (1H for Clear Scan or 1 frame step for long term exposure) in addition to the conventional 8-step speed selection •Multiple video signal outputs via a 9-pin D-sub connector - Y/R-Y/B-Y or RGB, Y/C or VBS •Composite signal output via a BNC connector •Genlock capability with VBS or BS signals •Accepts bayonet-mount lenses with a hot shoe connection •Optional CMA-D2CE can be used for power supply

Lens is optional




| | |
|---|---|
| Supplied accessories: | Lens mount cap |
| | Operation manual |
| Optional accessories: | Camera adaptor CMA-D2CE |
| | Remote control unit RM-C950 |
| | Remote control unit RM-930 |
| | Camera control unit CCU-M5P |
| | Digital Still Recorder DKR-700P |
| | DC cable (5/10/25/50/100m) CCDC-5/10/25/50A/100A |
| | 12-pin multi-core cable (2/5/10/25m) CCMC-12P02/05/10/25 |
| | Component/RGB cable CCXC-9DD (5m, 9-pin D-sub ↔ 9-pin D-sub) |
| | Component/RGB cable CCXC-9DB (5m, 9-pin D-sub ↔ 5BNCs) |
| | Component/RGB cable CCMC-9DS (5m, 9-pin D-sub ↔ 4BNCs, DIN 4-pin) |
| | Component/RGB cable CCMC-9DSMN (5m, 9-pin D-sub ↔ 3BNCs, Audio Mini jack, DIN 4-pin) |
| | Camera cable CCTQ-3RGB (3m, 20-pin ↔ 14-pin, for CCU-M5P) |
| | Camera cable CCTZ-3RGB (3m, 20-pin ↔ 26-pin, for CCU-M5P) |
| | Camera cable CCTZ-3YC (3m, 20-pin ↔ 26-pin, for CCU-M5P) |
| | Camera cable CCMC-1210P3 (3m, 12-pin ↔ 10-pin, for connecting RM-930 with CCU-M5P) |
| | Microscope adaptor with auto iris MVA-40 |
| | Microscope adaptor MVA-41A |
| | Microscope adaptor (one way) MVA-265 |
| | Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N |
| | Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM |
| | Coupler for OLYMPUS microscopes MVAC-33-O |
| | Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB |
| | Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV |
| | 2/3-inch Lens Mount Adaptor LO-32BMT |
| | Manual zoom lens VCL-707BXM (7.5 to 52.5mm, F1.6) |
| | Remote zoom lens VCL-712BXEA (7.5 to 90mm, F1.4) |
| | Remote zoom lens VCL-714BXEA (7.5 to 105mm, F1.4) |
| | Remote zoom lens VCL-716BXEA (7 to 112mm, F1.4) |

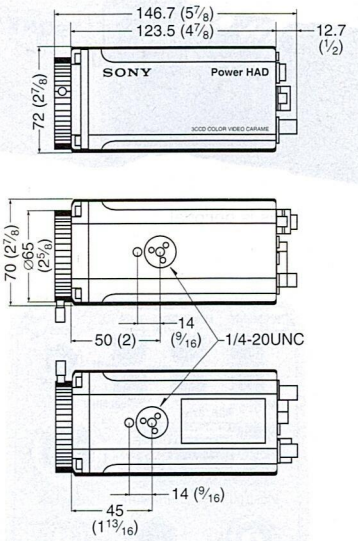
## Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Power HAD CCD (×3) |
| Picture elements: | 752(H) × 582(V) |
| Sensing area: | 6.4mm × 4.8mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with VBS or BS |
| Horizontal resolution: | 750TV lines |
| Lens mount: | 38 Bayonet mount |
| Sensitivity: | 2000 lx with F8.5 |
| Minimum illumination: | 6.5 lx (F1.4) |
| Gain control: | AGC/0 to 18dB (1dB step)/ISO (400, 800, 1600) switchable |
| Electronic shutter: | OFF (1/50s)/STEP/Long Exp./C. Scan switchable<br>STEP: 1/120(FL), 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)<br>Long Exp.: 255 to 1 frames (for field mode), 256 to 2 frames (for frame mode), OFF<br>C. Scan: 310/625 to 1/625(H), OFF |
| CCD IRIS control: | ON/OFF switchable |
| White balance: | ATW, AWB (R/B Paint: -7 to 0 to +7)<br>MANU (R/B Gain: –99 to 0 to +99) |
| Signal-to-noise ratio: | 58dB |
| Linear matrix: | ON/OFF switchable |
| Shading compensation: | OFF/1 to 9 |
| Master pedestal: | –99 to 0 to +99 |
| Detail: | –99 to 0 to +99 |
| Phase control: | H/SC phase control<br>H. phase: –99 to 0 to +99<br>SC phase: 0/180<br>Fine: –99 to 0 to +99 |
| Gamma: | ON/OFF switchable |
| Knee: | 1/2 switchable |
| Green-on-sync: | ON/OFF switchable |
| Memory bank: | A/B switchable |
| Memory protect: | ON/OFF switchable |
| Data send: | A>B, B>A switchable |
| Baud rate: | 9600, 4800, 2400, 1200 |
| Flash mode: | OFF/master/slave switchable |
| Printer trigger: | ON/OFF switchable |
| Video out: | VBS: 1.0Vp-p, 75Ω, sync negative<br>RGB: 0.7Vp-p, 75Ω<br>Y/C: Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, 75Ω, without sync<br>Y/R-Y/B-Y: Y: 1.0Vp-p, 75Ω<br>R-Y: 0.525Vp-p, 75Ω<br>B-Y: 0.525Vp-p, 75Ω |
| Operating temperature: | –5 to 45°C (23 to 113°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Power requirements: | DC 12V<br>(supplied from CMA-D2CE or CCU-M5P) |
| Power consumption: | 7.8W |
| Mass: | Approx. 670g (1 lb 8 oz) |
| Connectors: | LENS (6-pin), RGB/SYNC (D-sub 9-pin), GENLOCK IN (BNC), DC IN/REMOTE (12-pin), VIDEO OUT (BNC), CCU (20-pin), FLASH (Synchronous socket), REMOTE (8-pin) |

# 1. Colour video cameras



**Dimensions**



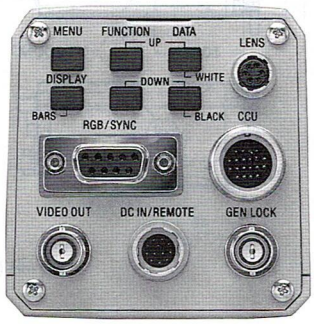

Unit: mm (inch)

# DXC-930P

## 3-chip CCD colour video camera

•Multi-purpose 3-CCD compact camera for various industrial video applications
•High density three 1/2-inch IT Hyper HAD sensor CCDs offer superior picture quality:
— Remarkably high horizontal resolution of 720TV lines
— High sensitivity of F5.0 at 2000 lx
— Excellent signal-to-noise ratio of 56dB
— Excellent colour reproduction
•Various built-in camera function controls •Field or frame integration mode selectable •Remote control from the optional RM-930 Remote Control Unit or CCU-M5P/M7P Camera Control Unit •Long distance control of lens zoom/ focus functions is possible by connecting CCU-M5P/ M7P with RM-930 •Control menu can be displayed in characters on the monitor •Digital control CCD IRIS function (equivalent to three F-stops) automatically adjusts the incoming light levels •AGC or 1dB step Gain control •Automatic or manual (R/B gain level adjustment) white balance control mode •Minutely controlled electronic shutter speed—Manual speed selection (1H or 1 frame step) in addition to the conventional 8-step speed selection •RGB output via a 9-pin D-sub connector •Y/C or VBS output can be selected from the 9-pin D-sub connector •Composite signal output via a BNC connector •Genlock capability with VBS or BS signals •Accepts 38 Bayonet-mount lenses with a hot-shoe connection •Optional CMA-D2CE can be used for power supply

Lens is optional



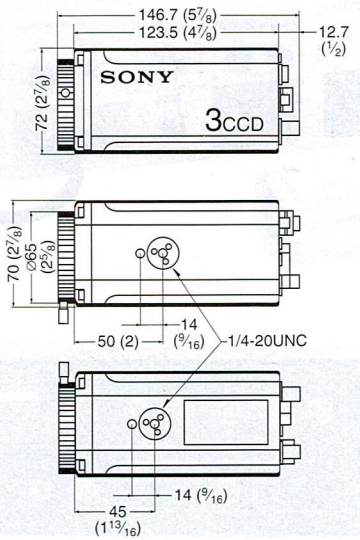

Supplied accessories: Lens mount cap
Operation manual

Optional accessories:
Camera adaptor CMA-D2CE
Remote control unit RM-930
Camera control unit CCU-M5P
Camera control unit CCU-M7P
Digital Still Recorder DKR-700P
DC cable (5/10/25/50/100m)
CCDC-5/10/25/50A/100A
12-pin multi-core cable (2/5/10/25m)
CCMC-12P02/05/10/25
Camera cable CCMC-1210P3
(3m,12-pin ↔ 10-pin, for connecting RM-930 with CCU-M5P/M7P)
RGB cable CCXC-9DD
(5m, 9-pin D-sub ↔ 9-pin D-sub)
RGB cable CCXC-9DB
(5m, 9-pin D-sub ↔ 5BNCs)
RGB cable CCMC-9DS
(5m, 9-pin D-sub ↔ 4BNCs, DIN 4-pin)
RGB CCMC-9DSMN
(5m, 9-pin D-sub ↔ 3BNCs, Audio Mini jack, DIN 4-pin)
Camera cable CCTQ-3RGB
(3m, 20-pin ↔ 14-pin, for CCU-M5P)
Camera cable CCTZ-3RGB
(3m, 20-pin ↔ 26-pin, for CCU-M5P/M7P)
Camera cable CCTZ-3YC
(3m, 20-pin ↔ 26-pin, for CCU-M5P/M7P)
Microscope adaptor with auto iris MVA-40
Microscope adaptor MVA-41A
Microscope adaptor (one way) MVA-265
Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N
Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM
Coupler for OLYMPUS microscopes MVAC-33-O
Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB
Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV
2/3-inch Lens Mount Adaptor LO-32BMT
Manual zoom lens VCL-707BXM
(7.5 to 52.5mm, F1.6)
Remote zoom lens VCL-712BXEA
(7.5 to 90mm, F1.4)
Remote zoom lens VCL-714BXEA
(7.5 to 105mm, F1.4)
Remote zoom lens VCL-716BXEA
(7 to 112mm, F1.4)

## Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD (×3) |
| Picture elements: | 752(H) × 582(V) |
| Sensing area: | 6.4mm × 4.8mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with VBS or BS |
| Horizontal resolution: | 720TV lines |
| Lens mount: | 38 Bayonet mount |
| Sensitivity: | 2000 lx with F5.0 |
| Minimum illumination: | 19 lx (F1.4, +18dB) |
| Gain control: | AGC/0 to 18dB (1dB step) switchable |
| Electronic shutter: | OFF (1/50s)/STEP/MANU switchable<br>STEP: 1/120(FL), 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)<br>MANU: 255 to 1 frames (for field mode), 256 to 2 frames (for frame mode), OFF, 310/625 to 1/625(H) |
| CCD IRIS control: | ON/OFF switchable |
| White balance: | AUTO/MANUAL (R/B gain: –99 to 0 to 99) selectable |
| Signal-to-noise ratio: | 56dB (Gamma:OFF, DTL:OFF) |
| Master pedestal: | –99 to 0 to +99 |
| Detail: | –99 to 0 to +99 |
| Phase control: | H/SC phase control<br>H. phase: –99 to 0 to +99<br>SC phase: 0/180<br>Fine: –99 to 0 to +99 |
| Gamma: | ON/OFF switchable |
| Green-on-sync | ON/OFF switchable |
| Video out: | VBS: 1.0Vp-p, 75Ω, sync negative<br>RGB: 0.7Vp-p, 75Ω<br>Y/C: Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, 75Ω, without sync |
| Operating temperature: | –5 to 45°C (23 to 113°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Power requirements: | DC 12V<br>(supplied from CMA-D2CE or CCU-M5P/M7P) |
| Power consumption: | 7.8W |
| Mass: | Approx. 670g (1 lb 8 oz) |
| Connectors: | LENS (6-pin), RGB/SYNC (D-sub 9-pin), GENLOCK IN (BNC), DC IN/REMOTE (12-pin), VIDEO OUT (BNC), CCU (20-pin) |

**Dimensions**




Unit: mm (inch)

# DXC-C1MDP

## CCD colour video camera

•Two-piece type colour camera composed of a camera head and a camera control unit •Extremely compact, lightweight and fluid-resistant camera head design •Ideal for biological, medical and industrial microscope applications •Detachable cable design •Various camera adjustment from a camera control unit •High resolution 1/2-inch IT Hyper HAD sensor offers superior picture quality •High sensitivity of F5.6 at 2000 lx, high horizontal resolution of 460TV lines and high signal-to-noise ratio of 46dB •Detail level adjustment, Gamma selection, Sync on green for precise picture controls •Eight-step variable speed electronic shutter (from 1/120 to 1/10000) •Multiple outputs of composite, R/G/B and Y/C signals •Excellent colour fidelity •Four alternative white balance control: AUTO (Auto White Balance), ATW (Auto Tracing White), MANU (Manual setting of R/B level, 2600K to 5600K), 3200K (Preset to 3200K) •Four alternative gain control selection (AGC/0/+6/+12) •Adoption of C-mount lens •Up to 15m Cable extension capability •Centre weighted average light metering •Frange back adjustment function •Acquisition of safety approvals - IEC-601-1, IEC-65 •CCD IRIS control (ON/OFF switchable) •Optional TGR-750 Title Generator produces characters to be superimposed on a picture

Supplied accessories:
- Tripod adaptor
- AC cord
- Lens cap
- Camera cable (5m)
- Cable cap for disinfection
- Operating instruction manual

Optional accessories:
- Title Generator TGR-750
- Extension cable CCMC-12P10C
- Microscope adaptor MVA-12
- Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N
- Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM
- Coupler for OLYMPUS microscopes MVAC-33-O
- Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB
- Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV

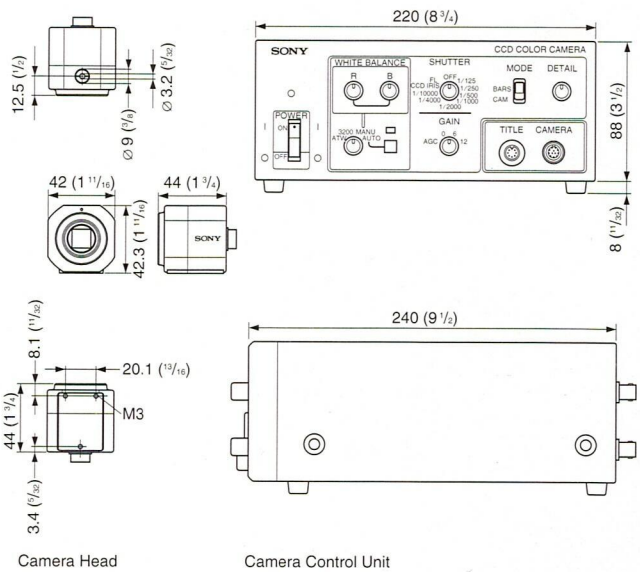
Mass:
- Camera head (without lens):
  - 105g (3.7 oz) (without 5m cable)
  - 575g (1 lb 4 oz) (with 5m cable)
- Camera control unit:
  - 2.6kg (5 lb 12 oz)

Connectors:
- Camera head:
  - CAMERA (12-pin)
- Camera control unit:
  - CAMERA (12-pin)
  - VBS OUT (BNC)
  - RGB OUT (BNC)
  - Y/C OUT (Mini DIN 4-pin)
  - SYNC OUT (BNC)
  - GENLOCK IN (BNC)
  - TITLE (8-pin)

## Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752(H) × 582(V) |
| Video signal system: | PAL standard |
| Sync system: | External synchronization with VBS or BS |
| Horizontal resolution: | 460TV lines |
| Lens mount: | C mount |
| Sensitivity: | F5.6 at 2000 lx |
| Minimum illumination: | 4.5 lx with F1.2 (+12dB) |
| Gain selection: | AUTO/0/+6/+12 selectable |
| Electronic shutter: | OFF, 1/120(FL), 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| S/N ratio: | 46dB |
| White balance: | AUTO/ATW/3200K/MANU (R,B) selectable |
| CCD IRIS control: | ON/OFF switchable |
| Detail level adjustment: | Continuously variable |
| Gamma control: | ON/OFF selectable only for RGB signal output |
| Sync on Green: | ON/OFF selectable |
| Phase control: | H/SC Phase control |
| Video out: | VBS: 1.0Vp-p, 75Ω, sync negative<br>RGB: 0.7Vp-p, 75Ω<br>Y/C: Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, 75Ω, without sync |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 14.5W |
| Maximum cable length: | 15m using 5m supplied cable and 10m optional extension cable |

### Dimensions




Camera Head — Camera Control Unit

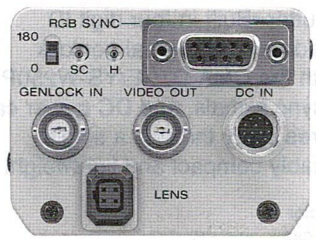
Unit: mm (inch)

# DXC-151AP

## CCD colour video camera

•RGB camera for image processing •High resolution 2/3-inch IT Hyper HAD CCD, together with a primary colour G stripe R/B sequential filter, offers 460TV lines (VBS or Y/C output) or 440TV lines (RGB output) of horizontal resolution and superior colour reproduction •Excellent signal-to-noise ratio of 46dB •RGB output via a 9-pin D-sub connector •S-video (Y/C) output is available through the CMA-D2CE camera Adaptor (connected to the camera via 12-pin multi-connector or 9-pin D-sub connector) •Composite signal output via a BNC, 9-pin D-sub or 12-pin connector •3-position selectable CCD IRIS covers various light conditions—BACKLIGHT/STANDARD/SPOTLIGHT •Genlock capability with VBS or BS signals •Four alternative white balance control: Automatic control modes—AWB (Autio White Balance)/ATW (Auto Tracing White), Preset modes—INDOOR (3200K)/OUTDOOR (5600K) •Variable speed electronic shutter •C-mount adoption •Remarkably compact and lightweight

Lens is optional




Supplied accessories:
- Lens connector
- Lens mount cap
- Operating instruction manual

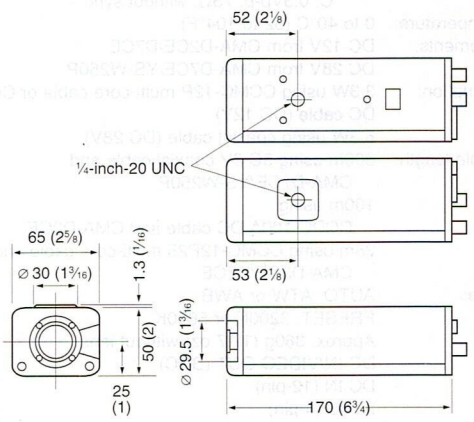
Optional accessories:
- Camera adaptor CMA-D2CE
- DC cable CCDC-5/10/25/50A/100A (5/10/25/50/100m)
- 12-pin Multi cable CCMC-12P02/05/10/25 (2/5/10/25m)
- RGB cable CCXC-9DD (9-pin D-sub ↔ 9-pin D-sub)
- RGB cable CCXC-9DB (9-pin D-sub ↔ 5BNC's)
- RGB cable CCMC-9DS (9-pin D-sub ↔ 4BNC's, DIN 4-pin)
- Microscope adaptor MVA-12
- Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N
- Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM
- Coupler for OLYMPUS microscopes MVAC-33-O
- Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB
- Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV
- Manual zoom lens VCL-1106YM (11.5 to 69mm, F1.4)

## Specifications

| | |
|---|---|
| Image device: | 2/3-inch InterlineTransfer Hyper HAD CCD<br>Primary colour G stripe R/B sequential filter |
| Picture elements: | 756 (H) × 581 (V) |
| Sensing area: | 8.8mm × 6.6mm |
| Video signal system: | PAL standard |
| Sync system: | Internal or external with VBS or BS |
| Horizontal resolution: | 460TV lines (VBS or Y/C output)<br>440TV lines (RGB output) |
| Lens mount: | C mount (Back focus adjustable) |
| Sensitivity: | F5.6 at 2,000 lx |
| Minimum illumination: | 13 lx with F1.4 (+12dB) |
| Gain control: | 0, +6, +12dB, AGC selectable |
| Electronic shutter: | OFF, 1/120(FL), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| S/N ratio: | 46dB |
| Phase control: | H/SC phase control |
| CCD IRIS control: | BACKLIGHT/STANDARD/SPOTLIGHT switchable |
| Video out: | VBS: 1.0Vp-p, 75Ω, Sync negative<br>RGB: 0.7Vp-p, 75Ω<br>Y/C: Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Power requirements: | DC 12V supplied from CMA-D2CE |
| Power consumption: | 7W |
| Maximum cable length: | 100m using CCDC-100A DC cable and CMA-D2CE<br>25m using CCMC-12P25 multi-core cable and CMA-D2CE |
| White balance: | AUTO: ATW or AWB<br>PRESET: 3200K or 5600K |
| Mass: | Approx. 520g (1 lb 2 oz) without lens |

| | |
|---|---|
| Connectors: | VIDEO OUT (BNC)<br>GENLOCK IN (BNC)<br>DC IN (12-pin)<br>LENS (4-pin)<br>RGB, VBS or Y/C out (9-pin D-sub) |

**Dimensions**




Unit: mm (inch)

# DXC-107AP

## CCD colour video camera

•High resolution 1/2-inch IT Hyper HAD sensor CCD offers high quality picture •High sensitivity in minimum illumination of only 4.5 lx with F1.2 lens •Excellent signal-to-noise ratio of 46dB •High horizontal resolution of 460TV lines •S-video output is available through the CMA-D2CE Camera Adaptor •Four alternative white balance control: Automatic control modes—AWB (Auto White Balance)/ATW (Auto Tracing White), Preset modes—INDOOR (3200K)/OUTDOOR (5600K) •3-position selectable CCD-IRIS covers various light conditions—BACKLIGHT/STANDARD/SPOTLIGHT •Variable speed electronic shutter •Built-in four digit ID number generator •C-mount adoption •External genlock capability of VS •Together with the CMA-D7CE/YS-W250P Camera Adaptor, video and sync signals, and DC power can be transmitted up to 300 metres away through a single 5C-2V coaxial cable •Remarkably compact and lightweight

Lens is optional

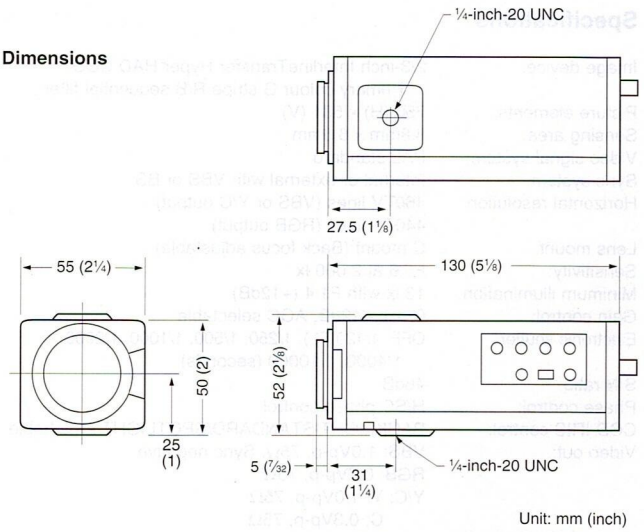
Supplied accessories:
- Lens connector
- Lens mount cap
- Operating instruction manual

Optional accessories:
- Camera adaptor CMA-D7CE
- Camera adaptor CMA-D2CE
- Camera adaptor YS-W250P
- DC cable CCDC-5/10/25/50A/100A (5/10/25/50/100m)
- 12-pin multi-core cable CCMC-12P02/05/10/25
- Microscope adaptor MVA-12
- Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N
- Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM
- Coupler for OLYMPUS microscopes MVAC-33-O
- Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB
- Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV

## Specifications

| | |
|---|---|
| Image device: | 1/2-inch InterlineTransfer Hyper HAD CCD |
| Picture elements: | 752 × 582 (V) |
| Sensing area: | 6.4mm × 4.8mm |
| Video signal system: | PAL standard |
| Sync system: | Internal or external with VS |
| Horizontal resolution: | 460TV lines |
| Lens mount: | C mount |
| Sensitivity: | F5.6 at 2,000 lx (AGC off) |
| Minimum illumination: | 4.5 lx with F1.2 (AGC on) |
| Gain control: | AGC ON/OFF switchable |
| Electronic shutter: | OFF, 1/120(FL), 1/250, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| S/N ratio: | 46dB |
| CCD IRIS control: | BACKLIGHT/STANDARD/SPOTLIGHT switchable |
| Phase control: | H phase control |
| Video out:: | VBS: 1.0Vp-p, 75Ω, sync negative<br>Y/C: Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, 75Ω, without sync |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Power requirements: | DC 12V from CMA-D2CE/D7CE<br>DC 28V from CMA-D7CE/YS-W250P |
| Power consumption: | 3.3W using CCMC-12P multi-core cable or CCDC DC cable (DC 12V)<br>6.3W using coaxial cable (DC 28V) |
| Maximum cable length: | 300m using 5C-2V coaxial cable and CMA-D7CE/YS-W250P<br>100m using CCDC-100A DC cable and CMA-D2CE<br>25m using CCMC-12P25 multi-core cable and CMA-D2CE/D7CE |
| White balance: | AUTO: ATW or AWB<br>PRESET: 3200K or 5600K |
| Mass: | Approx. 360g (12.7 oz) without lens |
| Connectors: | DC IN/VIDEO OUT (BNC)<br>DC IN (12-pin)<br>LENS (4-pin) |

**Dimensions**




Unit: mm (inch)

# CCU-M7P

## Camera control unit for DXC-D30P/637P/327BP/930P series

•Remote Control of DXC-D30P/637P/327BP/930P series colour video camera with maximum cable length of 300m •Scene File memory for up to four shooting conditions (excl. DXC-930P) •VBS, R/G/B, Y/R-Y/B-Y, Y/C outputs •XLR connector for MIC output •Built-in AC power supply •19-inch rack mountable and 2-units high

### Specifications

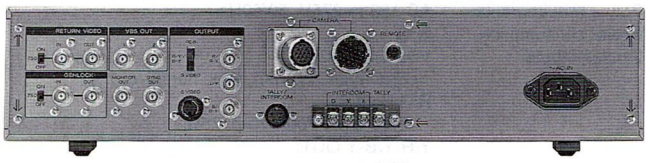
| | |
|---|---|
| Power requirements: | AC 185 to 275V, 50/60Hz |
| Power consumption: | 62W |
| Inputs/outputs: | VBS OUT (x2);<br>BNC-type, 1.0Vp-p, sync negative, 75Ω<br>R/G/B OUT;<br>BNC-type, 700mVp-p, 75Ω<br>Y/R-Y/B-Y OUT;<br>BNC-type,<br>Y: 1.0Vp-p, sync negative, 75Ω<br>R-Y/B-Y: 525mVp-p (75% colour bars)<br>Y/C OUT;<br>Y/C connector (4-pin),<br>Y] 1.0Vp-p, sync negative, 75Ω<br>C] 300mVp-p, 75Ω<br>SYNC OUT;<br>BNC-type, 4.0Vp-p, 75Ω, negative<br>GENLOCK IN;<br>BNC-type, VBS (1.0Vp-p) or<br>BS (300mVp-p), loop through<br>RET VIDEO IN;<br>BNC-type, VBS, 1.0Vp-p, loop-through<br>CAMERA;<br>Sony Z-type, 26-pin<br>TALLY/INTERCOM;<br>DIN 4-pin or screw terminals<br>MIC OUT;<br>XLR-type, 3-pin, –20dBu |
| Control: | Gain select<br>Output mode select<br>Status display ON/OFF<br>Shutter speed select<br>Iris (auto/manual)<br>White balance (auto/manual/preset)<br>R/B gain<br>Black balance (auto/manual/preset)<br>Master pedestal<br>R/B pedestal*<br>Gamma (manual/preset)<br>Master gamma*<br>R/B gamma*<br>Knee point (auto/manual/preset)*<br>Detail level<br>Sub-carrier phase<br>Horizontal phase<br>Scene File operation*<br>Tally/Intercom* |
| Operating temperature: | –10 to 45°C (14 to 113°F) |
| Dimensions: | Approx. 424(W) × 103(H) × 387(D)mm<br>($16^{3}/_{4} \times 4^{1}/_{8} \times 15^{1}/_{4}$ inches) |
| Mass: | 8.5kg (18 lb 12 oz) |
| Supplied accessories: | AC power cord<br>Rack mount metals |
| Optional cables: | |
| (CCU-M7P ↔ DXC-D30P/637P/327BP series) | CCZ-A2 (2m)<br>CCZ-A5 (5m)<br>CCZ-A10 (10m)<br>CCZ-A25 (25m)<br>CCZ-A50 (50m)<br>CCZ-A100 (100m) |
| (CCU-M7P ↔ DXC-930P) | CCTZ-3RGB (3m) or<br>CCTZ-3YC (3m) with<br>CCZ-A cable |
| (CCU-M7P ↔ RM-930) | CCMC-1210P3 (3m) |

* Note: When used with the DXC-930P, these items can not be controlled.

# CCU-M5P

## Camera control unit for DXC-D30P/637P/327BP/ 950P/930P

•Directly interfaces with both Z-type (26-pin) and Q-type (14-pin) camera systems •Also interfaces with DXC-950P/ 930P via CCTZ/CCZ-A or CCTQ/CCQ-AM combination •The focus and zoom can be also controlled by connecting RM-930 with CCMC-1210P3 cable •Remote control operation with maximum cable lengths of 300m for Z-type and 100m for Q-type cable VBS, R/G/B, Y/R-Y/B-Y, Y/C output •Built-in AC power unit •19-inch rack mountable and 2-units high



### Specifications

| | |
|---|---|
| Power requirements: | AC 187V to 275V, 50/60Hz |
| Power consumption: | 54W |
| Inputs/outputs: | VBS OUT (×2);<br>BNC-type, 1.0Vp-p, sync negative, 75Ω<br>R/G/B OUT;<br>BNC-type, 700mVp-p, 75Ω<br>Y/R-Y/B-Y OUT;<br>BNC-type<br>Y: 1.0Vp-p, sync negative, 75Ω<br>R-Y/B-Y: 525mVp-p (75% colour bars)<br>Y/C OUT;<br>Y/C connector (4-pin),<br>[Y] 1.0Vp-p, sync negative, 75Ω<br>[C] 300mVp-p, 75Ω<br>SYNC OUT;<br>BNC-type, 4.0Vp-p, 75Ω, negative<br>GENLOCK IN;<br>BNC-type, VBS(1.0Vp-p) or<br>BB(450mVp-p), loop-through<br>RET VIDEO IN;<br>BNC-type, VBS, 1.0Vp-p, loop-through<br>CAMERA;<br>Sony Q-type, 14-pin<br>Sony Z-type, 26-pin<br>TALLY/INTERCOM;<br>DIN 4-pin or screw terminals |
| Control: | Gain select<br>Output mode select<br>Status display<br>Shutter speed select<br>Iris (auto/manual)<br>White balance (auto/manual/preset)<br>Black balance (auto/manual/preset)*1<br>R/B gain<br>Master pedestal<br>R/B pedestal<br>Gamma (DXC-950P/930P only)<br>Knee point (auto/manual/preset)*1,2<br>Detail level<br>Sub-carrier phase<br>Horizontal phase<br>Tally/Intercom*1,2<br>Zoom (DXC-950P/930P only, by connecting RM-930 with CCMC-1210P3)<br>Focus (DXC-950P/930P only, by connecting RM-930 with CCMC-1210P3) |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Dimensions: | Approx. 424(W) × 103(H) × 321(D)mm<br>($16^3/_4 \times 4^1/_8 \times 12^3/_4$ inches) |
| Mass: | 5.9kg (13 lb) |
| Supplied accessories: | AC power cord<br>Rack mount brackets |
| Optional cables: | |
| (CCU-M5P ↔ DXC-D30P/637P/327BP) | CCZ-A2 (2m)<br>CCZ-A5 (5m)<br>CCZ-A10 (10m)<br>CCZ-A25 (25m)<br>CCZ-A50 (50m)<br>CCZ-A100 (100m) |
| (CCU-M5P ↔ DXC-950P/930P) | CCTZ-3RGB (3m) & CCZ-A Cable<br>CCTZ-3YC (3m) & CCZ-A Cable<br>CCTQ-3RGB (3m) & CCQ-AM Cable |
| (CCU-M5P ↔ RM-930) | CCMC-1210P3 (3m) |

Note: *1 When used with the DXC-950P, these items can not be controlled.
*2 When used with the DXC-930P, these items can not be controlled.

## CMA-D2CE
**Camera adaptor for DXC-950P/930P/ 151AP/107AP**

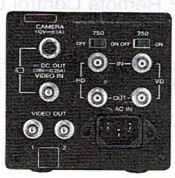
•Supplies DC power with a CCDC cable to cameras
•Transmits DC power and video/sync signals between the camera and the adaptor with a CCMC cable
•Maximum cable length:
100m with CCDC-100A cable
25m with CCMC-12P25 cable
•19-inch EIA standard rack mountable

Connectors: CAMERA (12-pin MULTI)
CAMERA (4-pin DIN)
VIDEO OUT (BNC)
S VIDEO OUT
(Mini DIN 4-pin)
GEN-LOCK IN (BNC)
DC out: 13V, 1.3A
Power requirements:
AC 100 to 240V, 50/60Hz
Power consumption:
24.5W
Dimensions: 210(W) × 50(H) × 200(D)mm
($8^{3}/_{8} \times 2 \times 7^{7}/_{8}$ inches)
Mass: 1.1kg (2 lb 7 oz)
Supplied accessories:
AC power cord
Operation manual

## CMA-D7CE
**Camera adaptor for DXC-107AP**

•Power supply and video/sync signal transmission by connecting to DXC-107AP with a single coaxial cable
•Maximum cable length:
300m with 5C-2V cable
25m with CCMC-12P25 cable

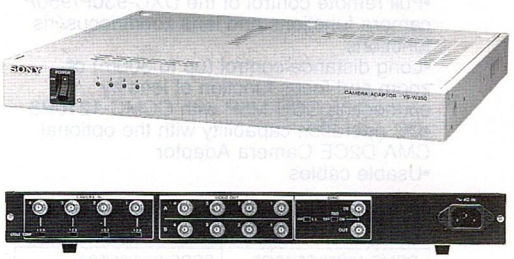
Connectors: CAMERA (12-pin)
DC OUT/VIDEO IN (BNC)
VIDEO OUT (BNC × 2)
HD IN/OUT (BNC, loop-through, 75Ω ON/OFF)
VD (GENLOCK) IN/OUT
(BNC, loop-through, 75Ω ON/OFF)
DC out: 28V, Max. 0.25A (BNC)/
12V, Max. 0.3A (12-pin)
Power requirements:
AC 220 to 240V, 50/60Hz
Power consumption:
35W
Dimensions: 105(W) × 104.5(H) × 254.7(D)mm
($4^{1}/_{4} \times 4^{1}/_{4} \times 10^{1}/_{8}$ inches)
Mass: 2.7 kg (5 lb 15 oz)
Supplied accessories:
AC power cord
Operation manual




## YS-W250P
**AC adaptor for DXC-107AP**

•Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable •Up to four cameras can be connected •Internal or external synchronization with VS or AC line lock •Extends the cable lengh up to 300m with 5C-2V coaxial cable

Connectors: CAMERA IN 1 to 4 (BNC × 4)
VIDEO OUT A 1 to 4 (BNC × 4)
VIDEO OUT B 1 to 4 (BNC × 4)
SYNC IN/OUT (BNC, loop-through, 75Ω ON/OFF switch)
Power requirements:
AC 220 to 240V, 50Hz
Power consumption:
48W
Dimensions: 424 (W) × 52(H) × 330(D)mm
($16^{3}/_{4} \times 2^{1}/_{8} \times 13$ inches)
Mass: 3.6kg (7 lb 15 oz)




## CMA-8ACE
**Camera adaptor for DXC-D30P/637P/ 327BP/Betacam SP 2000 PRO camcorders, EVW series**

•Supplies DC power to the Camera, VO-8800P and dockable VTRs
•Video output is selectable between composite (BNC) or Y/C separate (S-connector)

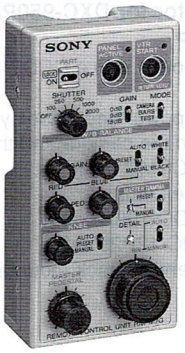
Input connector:
14-pin (CCQ type) for the camera
Output connectors:
VIDEO OUT: BNC; VBS
S-connector; Y/C
MIC OUT: XLR 3-pin
Power requirements:
AC 110/127/220/240V, 50/60Hz
Power consumption:
95W max.
Dimensions: 105(W) × 105(H) × 308(D)mm
($4^{1}/_{4} \times 4^{1}/_{4} \times 12^{1}/_{4}$ inches)
Mass: 2.8 kg (6 lb 3 oz)
Supplied accessory:
AC power cord

## RM-M7G
### Remote control unit for DXC-D30P/637P/327BP

•Compact and lightweight hand-held control unit
•For field production or video operational panel for CCU-M7P/M5P

Power requirements:
DC 9 to 17V, from a camera or a CCU
Power consumption:
0.4W
Mass: 500g (1 lb 2 oz)
Dimensions: Approx.
86(W) × 47(H) × 170(D)mm
(3 1/2 × 1 7/8 × 6 3/4 inches)

Inputs/outputs:
CAMERA: 10-pin
MONITOR OUT: BNC-type
AUXILIARY IN: 10-pin
Control:
Gain select
Output mode select
VTR start/stop
Iris (auto/manual)
Auto iris override
White and black balance (auto/manual/preset)
White balance memory
R/B gain
Gamma (manual/preset)
Master pedestal (manual/preset)
R/B pedestal
Knee point (auto/manual/preset)
Shutter speed select
Detail
Lock (ON/Part/OFF)




## RM-C950
### Remote control unit

•Full remote control of the DXC-950P camera functions and lens zoom/focus/iris functions via RS-232C
•Facilitated operation with knob control of gain, detail, master pedestal, red and blue gain functions
•A printer button is provided
•Power is supplied through the DXC-950P connected to the CMA-D2CE Camera Adaptor or CCU-M5P Remote Control Unit

Power requirements:
DC 12V (supplied from DXC-950P connected to CMA-D2CE or CCU-M5P)
Operating temperature:
–5 to 45°C (23 to 113°F)
Connectors: CAMERA (8-pin)

Control:
IRIS (AUTO/MANUAL)
ZOOM
FOCUS
COLOUR BAR
MENU DISPLAY
GAIN (STEP/AGC/ISO)
SHUTTER SPEED (OFF/STEP/LONG EXP/C.SCAN/CCD IRIS)
AE WINDOW (LARGE/MEDIUM/SPOT)
FIELD/FRAME (CCD INTEGRATION MODE)
COLOUR TEMPERATURE (3200K/5600K)
WHITE BALANCE (AUTO/MANUAL/ATW)
LINEAR MATRIX
SHADING COMPENSATION
MASTER PEDESTAL
DETAIL
H. PHASE
SC PHASE
FINE
GAMMA
KNEE

G. SYNC
MEMORY BANK
MEMORY PROTECT
DATA SEND
D-SUB OUTPUT (VBS/Y/C, RGB/COMPONENT)
BAUD RATE
FLASH
PRINTER TRIGGER
Mass: Approx. 400g (14 oz)
Dimensions: 212(W) × 41(H) × 132(D)mm
(8 3/8 × 2 5/8 × 5 1/4 inches)
Supplied accessories:
Connection cable (3m)
Operation manual

## RM-930
### Remote control unit

•Full remote control of the DXC-930P/950P camera functions and lens zoom/focus/iris functions
•Long distance control (up to 300m) of zoom and focus function of lens by connecting CCU-M5P with CCMC-1210P3
•DC operation capability with the optional CMA-D2CE Camera Adaptor
•Usable cables

| DXC-930P/950P(RM-930 | RM-930(CMA-D2CE |
|---|---|
| CCMC-12Pcable | CCMC-12P or CCDC cable |
| CCMC-12P02/05/10/25 | CCDC-5/10/25/50A |
| CCMC-12P02/05/10 | CCMC-12P02/05/10/25 |
| CCMC-12P25 | CCMC-12P02/05/10 |

Power requirements:
DC 12V (supplied from CMA-D2CE)
Operating temperature:
–5 to 45°C (23 to 113°F)

Connectors:
CAMERA (12-pin)
MONITOR OUT (BNC)
DC IN (12-pin)
Control:
IRIS (AUTO/MANUAL)
ZOOM
FOCUS
COLOUR BAR
MENU DISPLAY
GAIN (STEP/AGC/ISO*1)
SHUTTER SPEED (OFF/STEP/LONG EXP./C. SCAN/CCD IRIS)
AE WINDOW (LARGE/MEDIUM/SPOT)*1
FIELD/FRAME (CCD INTEGRATION MODE)
COLOUR TEMPERATURE (3200K/5600K)
WHITE BALANCE (AUTO/MANUAL/ATW*1)
AUTO BLACK BALANCE*2
LINEAR MATRIX*1
SHADING COMPENSATION*1
MASTER PEDESTAL
DETAIL
H. PHASE
SC PHASE
FINE
GAMMA

KNEE*1
G SYNC
MEMORY BANK*1
MEMORY PROTECT*1
DATA SEND*1
D-SUB OUT (VBS/Y/C, RGB/COMPONENT*1)
BAUD RATE*1
Mass: Approx. 400g (14 oz)
Dimensions: 212(W) × 52.5(H) × 132(D)mm
(8 3/8 × 2 1/8 × 5 1/4 inches)
Supplied accessories:
CCMC-12P05 cable
Operation manual

Note: *1 When used with the DXC-930P, these items can not be controlled.
*2 When used with the DXC-950P, this item can not be controlled.

## TGR-750
### Title Generator

•Produces a total of 128 characters, including letters, numbers and various symbols (for example, %, *, ?, and !) on pictures from the DXC-C1MDP Video Camera •A maximum of 24 characters can be produced for each of nine lines of text with a choice of eight colours •Clock and stopwatch functions

Characters: Total 128 characters
A to Z (capital/small letters), 0 to 9, various symbols (for example, %, *, ?, and !)
Page memory function:
Up to 9 pages
Character size:
7 types
Character colour:
8 colours
(for character & background)
Fixed cable: 30cm
Mass: 150g (5.3 oz)
Dimensions: 137(W) × 18.5(H) × 82(D)mm
(5 1/2 × 3/4 × 3 1/4 inches)

## CA-325AP
### Camera adaptor for DXC-D30P/ 637P/327BP

•Multiple outputs of R/G/B, composite sync, VBS, Y/C and AUDIO signals
•Built-in AC power unit

Power requirements:
AC 220/240V, 50/60Hz
Power consumption:
44W
Inputs/outputs:
INTERFACE; 50-pin
VBS OUT; BNC-type
R/G/B OUT; BNC-type (×3)
COMPOSITE SYNC OUT; BNC-type
Y/C OUT;
Y/C connector (Mini DIN 4-pin)
AUDIO OUT; Phono jack
GENLOCK IN; BNC-type
REMOTE; 10-pin
Mass: 1.3kg (2 lb 14 oz)

## CA-325B
### Camera adaptor for DXC-D30P/ 637P/327BP

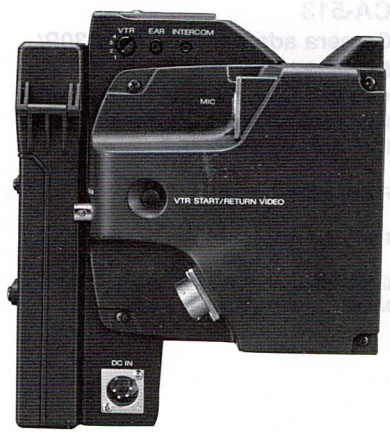
•Multiple outputs of R/G/B, composite sync, VBS, Y/C and AUDIO signals
•DC operation type

Power requirements:
DC 12V
Inputs/outputs:
INTERFACE; 50-pin
VBS OUT; BNC-type
R/G/B OUT; BNC-type (×3)
COMPOSITE SYNC OUT; BNC-type
Y/C OUT;
Y/C connector (Mini DIN 4-pin)
AUDIO OUT; Phono jack
GENLOCK IN; BNC-type
REMOTE; 10-pin
DC IN;l XLR-type, 4-pin
Mass: 500g (1 lb 2 oz)

## CA-327P
### Camera adaptor for DXC-D30P/ 637P/327BP

•For interfacing DXC-D30P/637P/327BP with portable VTRs, CCU-M5P and CMA-8ACE
•Equips an S-connector and audio out connector
•The units with serial NO. 40100 and below can be used only with DXC-327P

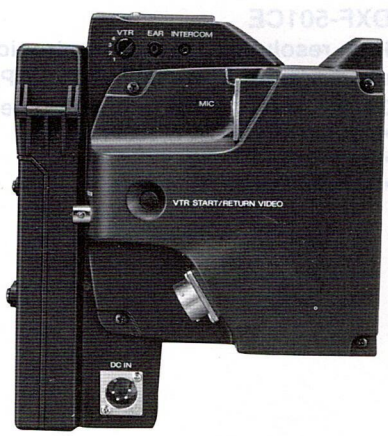
Power requirements:
DC 12V
Inputs/outputs:
INTERFACE; DIN 50-pin
VTR/CCU/CMA; Sony Q-type, 14-pin
MIC IN; XLR-type, 3-pin
DC IN; XLR-type, 4-pin
GENLOCK IN; BNC-type
EARPHONE; mini jack
INTERCOM; mini intercom jack
Mass: 1.2kg (21 lb 10 oz)




## CA-537P
### Camera adaptor for DXC-D30P/ D30P/637P/327BP

•For interfacing DXC-D30P/637P/327BP with portable VTRs, CCU-M7P/M5P and CMA-8ACE
•Supplies mic power from MIC IN connector

Power requirements:
DC 12V
Power consumption:
1.7W
Inputs/outputs:
INTERFACE; DIN 50-pin
VTR/CCU/CMA; Sony Z-type, 26-pin
MIC IN; XLR-type, 3-pin
DC IN; XLR-type, 4-pin
GENLOCK IN; BNC-type
EARPHONE; mini jack
INTERCOM; mini intercom jack
Mass: 1.3kg (2 lb 14 oz)



## CA-511
### Camera adaptor for DXC-D30P/ 637P/327BP

•Allows a BVV-5PS to be coupled with a DXC-637P/537AP/327AP

Power requirements:
DC 12V
Power consumption:
0.1W
Inputs/outputs:
INTERFACE; DIN 50-pin
Betacam output; D-sub 50-pin
Mass: 0.5kg (1 lb 2 oz)

Note: The CA-511 does not allow connection with the CA-50P/50AP series camera adaptors.

## CA-512P
### Camera adaptor for DXC-D30P/ 637P/327BP

•Allows an AG-7450 Panasonic S-VHS video tape recorder to be coupled with a DXC-D30P/637P/327BP

Power requirements:
DC 12V
Power consumption:
0.35W
Input/outputs: INTERFACE; 50-pin ×1
68-pin ×1
Mass: 0.7kg (1 lb 9 oz)

## CA-513
### Camera adaptor for DXC-D30P/ 637P/327BP

•Allows a BR-S422E JVC S-VHS video tape recorder to be coupled with a DXC-D30P/637P/327BP

Power requirements:
DC 12V
Power consumption:
0.15W
Input/outputs: INTERFACE: 50-pin × 2
Mass: 0.69kg (1 lb 8 oz)

## DXF-501CE
### High resolution 1.5-inch electronic viewfinder for EVW-300P, DXC-637P/ 327BP, UVW-100BP (monochrome)

•Supplied with the EVW-300PK/300PL
•Quick start CRT
•Sophisticated diopter design

Picture tube: 1.5-inch 50° deflection
Horizontal resolution:
550 lines (centre)
Power requirements:
DC 12V, supplied from a camera
Power consumption:
2.3W
Mass: Approx. 500g (1 lb 2 oz)
Dimensions: Approx.
182(W) × 64(H) × 189(D)mm
($7^1/_4 \times 2^5/_8 \times 7^1/_2$ inches)

## DXF-601CE
**High resolution 1.5-inch electronic viewfinder for DXC- 637P/327BP, UVW-100BP (monochrome)**

- Supplied with DXC-637PK/637L, PVW-637PK/637PL, DXC-327BPF/327BPK/327BPL UVW-100BPF/100BPK/100BPL
- Rugged, diecast aluminium body
- Large eye cup size
- Peak volume control
- High horizontal resolution of 600TV lines
- Quick start CRT

Picture tube: 1.5-inchmonochrome
Horizontal resolution:
600 lines (centre)
Indicator: REC/TALLY indicator, BATT indicator, SHUTTER indicator, GAIN UP indicator
Power requirements:
DC 12V
Power consumption:
2.1W
Mass: 660g (1 lb 7 oz)
Dimensions: Approx.
192(W) × 63(H) × 219(D)mm
($7^5/_8 \times 2^1/_2 \times 8^5/_8$ inches)

## DXF-701CE
**High resolution 1.5-inch electronic viewfinder for DXC-D30P (monochrome)**

- Supplied with DXC-D30PF/D30K/D30L/637PK/637PL, PVW-D30PF/D30PK/D30L, DSR-130PF/130PK/130PL
- Rugged, diecast aluminium body
- Large eye cup size
- Two Red REC Tally Lamps
- Peak volume control
- High horizontal resolution of 600TV lines
- Quick start CRT

Picture tube: 1.5-inchmonochrome
Horizontal resolution:
600 lines (centre)
Indicator:
REC × 2, TAKE, BATT, SHUTTER, GAIN UP
Power requirements:
DC 12V
Power consumption:
2.1W
Mass: 660g (1 lb 7 oz)
Dimensions: Approx.
236(W) × 85(H) × 219(D)mm
($9^3/_8 \times 3^1/_4 \times 8^5/_8$ inches)

## DXF-41
**4-inch electronic viewfinder for DXC-D30P/637P/327BP, UVW-100BP, EVW-300P (monochrome)**

- CCIR/EIA switchable
- Tally, intercom facilities
- Can be mounted into the RMM-1800 rack mounting metal

Picture tube: 4-inch monochrome, 50° deflection
Horizontal resolution:
500 lines (centre)
Connectors: DIN 8-pin connector
Phone and mini for intercom
Power requirements:
Supplied from a camera
Power consumption:
10W
Operating temperature:
0 to 40°C (32 to 104°F)
Dimensions: Approx.
105(W) × 107(H) × 252(D)mm
($4^1/_4 \times 4^1/_4 \times 10$ inches)
including projecting parts and controls
Mass: Approx. 1.62kg (3 lb 9 oz)
with stand and hood

Supplied accessories:
Stand (1), Screws (4), Hood (1)
Connecting cord (mini-mini) (1)

## DXF-50BCE
**High resolution 5-inch electronic viewfinder for DXC-D30P/637P/327BP, UVW-100BP, EVW-300P (monochrome)**

- Tally facility
- "+" mark appears on the screen with CENTER MARK switch

Picture tube: 5-inch monochrome, 70° deflection
Scanning system:
2:1 interlace
625 lines
Horizontal resolution:
600 lines (centre)
Connectors: DIN 8-pin connector
Power requirements:
Supplied from a camera
Power consumption:
10W
Operating temperature:
–10 to 50°C (14 to 122°F)
Dimensions: Approx.
144.5(W) × 167(H) × 290(D)mm
($5^3/_4 \times 6^5/_8 \times 11^1/_2$ inches)
including projecting parts and controls
Mass: Approx. 3.1kg (6 lb 14 oz)
with stand and hood
Supplied accessories:
Stand, Screws (4)

## DC-520
### Battery adaptor for DXC-D30P/637P/327BP, UVW-100BP, EVW-300P

•For attaching two NP-1B battery packs to the DXC-D30P/637P/327BP, UVW-100BP, EVW-300P

Dimensions: Approx.
100(W) × 195(H) × 44(D)mm
(4 × 7 3/4 × 1 3/4 inches)
Mass: Approx. 230g (8 oz)

## DR-100
### Intercommunication headset

•Used in the DXC-D30P/637P/327BP, UVW-100BP, CCU-M5P/M7P, SEG-2550AP/2000AP
•With mini type 4-pole plug

Mass: 105g (3.7 oz)

## LC-421
### Carrying case for DXC-D30P/637P, DXC-327BP, UVW-100BP

•Can hold the DXC-D30P/637P/327BP in camcorder configuration with DSR-1P/PVV-1AP/PVV-3P/EVV-9000P
•Supplied with the PVW-637PK/637PL, PVW-D30F, DSR-130PF, UVW-100BPF

Dimensions: Approx.
790(W) × 440(H) × 340(D)mm
(31 1/8 × 17 3/8 × 13 1/2 inches)
Mass: 7.7kg (17 lb)

## LC-422
### Carrying case for EVW-300P camcorder

•Suitable for transportation and storage of the EVW-300P

Dimensions: Approx.
696(W) × 419(H) × 260(D)mm
(27 1/2 × 16 1/2 × 10 1/4 inches)
Mass: Approx. 4.8kg (10 lb 9 oz)

## LC-304SFT

**Soft carrying case for DXC-D30P /637P/327BP, EVW-300P, UVW-100BP**

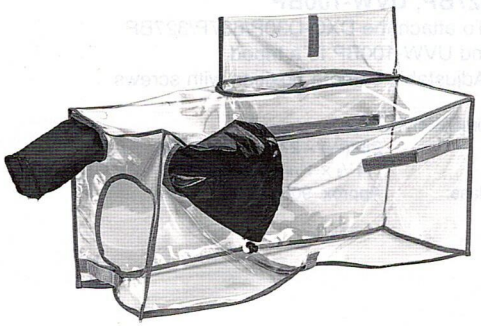
•Can hold DXC-D30P/637P/327BP in camcorder configuration with DSR-1P/ BVV-5PS/PVV-1AP/PVV-3P/EVV-9000P
•Lightweight for easy transportation

Dimensions: Approx.
720(W) × 360(H) × 286(D)mm
($28^{3}/_{8} \times 14^{1}/_{4} \times 11^{3}/_{8}$ inches)
Mass: 2.2kg (4 lb 14 oz)

## LCR-1

Camera rain cover for DXC-D30P/637P/ 327BP, EVW-300P, UVW-100BP camcorders
•Can be used for the DXC-D30P/637P/ 327BP, in camcorder configuration with DSR-1P/BVV-5PS/PVV-1AP/PVV-3P/ EVV-9000P
•Transparent material used to operate camera and VTR switches with the LCR-1 on

Mass: 260g (9 oz)



## CAC-12

**Camera microphone holder**

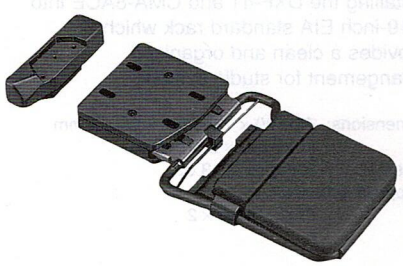
•Adjustable microphone direction
•For attaching the ECM-672/670 or the C-74 condensor microphone to the DXC-D30P/637P/327BP, EVW-300P and UVW-100BP

## CAC-4

**Chest pad for DXC-D30P/637P/ 327BP, EVW-300P, UVW-100BP**

•Provides more stable camera operation
•Attachable to the VCT-12/14 /U14 tripod adaptors directly

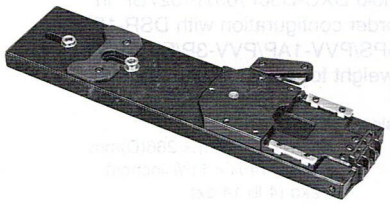
Mass: Approx. 185g (7 oz)



## VCT-12
**Tripod adaptor for EVW- 300P**

•Supplied with the EVW-300PK/300PL series
•To attach the EVW- 300P to a tripod without detaching the shoulder pad

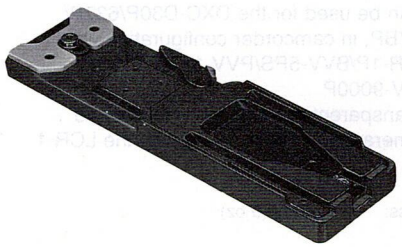
Dimensions: Approx.
340(W) × 32(H) × 105(D)mm
(13 1/2 × 1 5/16 × 4 1/4 inches)
Mass: Approx. 770g (1 lb 11 oz)



## VCT-14
**Tripod adaptor for DXC-D30P/637P/ 327BP, UVW-100BP**

•To attach the DXC-D30P/637P/327BP and UVW-100BP to a tripod
•Adjustable camera position with screws

Dimensions: Approx.
282(W) × 27(H) × 80(D)mm
(11 1/8 × 1 1/8 × 3 1/4 inches)
Mass: Approx. 900g (2 lb)



## VCT-U14
**Tripod adaptor for DXC-D30P /637P/327BP, UVW-100P**

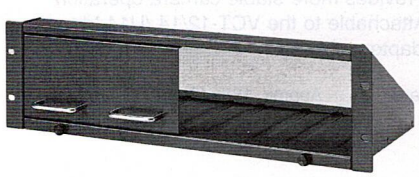
•Supplied with the DXC-D30PF/D30PK /D30PL, DXC-637PK/637PL, DXC-327BPF/327BPK/327BPL, PVW-D30PF/D30PK/D30PL, PVW-637PK/ PVW-637PL, DSR-130PF/130PK/130PL, UVW-100BPF/100BPK/100BPL
•Adjustable camera position with screws

Dimensions: 282(W) × 27(H) × 80(D)mm
(11 1/8 × 1 1/8 × 3 1/4 inches)
Mass: Approx. 900g (2 lb)

## RMM-1800
**Rack-mounting metal**

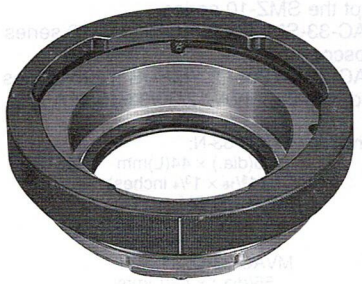
•This mounting adaptor is used for installing the DXF-41 and CMA-8ACE into a 19-inch EIA standard rack which provides a clean and organized arrangement for studio system

Dimensions: 482(W) × 136.2(H) × 223(D)mm
(19 × 5 3/8 × 8 7/8 inches)
Mass: 3.1kg (6 lb 13 oz)
Supplied accessories:
Blank panel × 2



## LO-32BMT
### 2/3-inch lens mount adaptor for DXC-327AP/950P/930P and EVW-300P

•For mounting a 2/3-inch bayonet-mount type lens on the DXC-327AP/950P/930P and EVW-300P

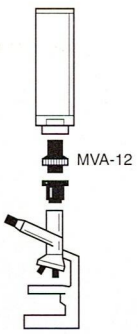


## MVA-12
### Video camera microscope adaptor

•For 2/3-inch video camera with C-mount (DXC-C1MDP*/107AP*/151AP)

| | |
|---|---|
| Video camera mount: | C-mount |
| Applicable microscope: | Biological or metallurgical microscope with straight tube |
| Dimensions: | 48(dia.) × 98(L)mm ($11\frac{5}{16} \times 3\frac{7}{8}$ inches) |
| Mass: | 120g (4.2 oz) |

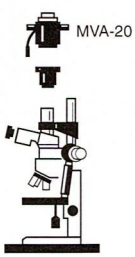
* Although the MVA-12 can also be used with the DXC-C1MDP/107AP(1/2-inch camera), the effective viewing area is to be changed.



## MVA-20
### Microscope adaptor with Auto Iris

•For 2/3-inch video camera with bayonet mount

| | |
|---|---|
| Video camera mount: | Bayonet |
| Applicable microscope: | Biological or metallurgical microscope |
| Dimensions: | 74(dia.) × 116(W) × 104(L)mm ($3 \times 4\frac{5}{8} \times 4\frac{1}{8}$ inches) |
| Mass: | 600g (1 lb 5 oz) |



## MVA-33
### Microscope adaptor

•For 2/3-inch video camera with bayonet mount

| | |
|---|---|
| Video camera mount: | Bayonet |
| Applicable microscope: | Biological or metallurgical microscope |
| Dimensions: | 55(dia.) × 100(L)mm ($2\frac{1}{4} \times 4$ inches) |
| Mass: | 250g (9 oz) |

## MVAC-33 series

### Coupler

•MVAC-33-N: For NIKON microscopes except the SMZ-10 series
•MVAC-33-SM: For NIKON SMZ-10 series microscopes
•MVAC-33-O: For OLYMPUS microscopes
•Used with the MVA-12/20/33/40/41A

Dimensions: MVAC-33-N;
48(dia.) × 44(L)mm
(11 5/16 × 1 3/4 inches)
MVAC-33-SM;
47(dia) × 87.5(L) mm
(1 7/8 × 3 1/2 inches)
MVAC-33-O;
55(dia.) × 48(L)mm
(2 1/4 × 1 15/16 inches)
Mass: MVAC-33-N; 50g (1.8 oz)
MVAC-33-SM; 125g (5 oz)
MVAC-33-O; 100g (3.6 oz)

MVAC-33-N

MVAC-33-SM

MVAC-33-O

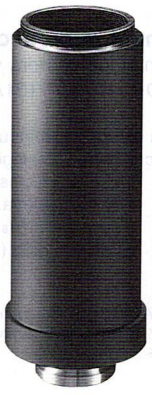
## ZBB and ZSV

### Coupler

•ZBB: For Zeiss microscopes except the AXIOVERT 100/135 series and SV series
•ZSV: For Zeiss AXIOVERT 100/135 series and SV series microscopes
•Used with the MVA-12/20/33/40/41A

Dimensions: ZBB;
62(dia.) × 110(L)mm
(2 1/2 × 4 3/8 inches)
ZSV;
52(dia) × 131(L) mm
(2 1/8 × 4 1/4 inches)

ZBB



ZSV

## MVA-40

### Microscope adaptor

•For mounting the DXC-327BP/950P/930P series onto various types of microscopes
•Automatic/manual light control

Dimensions: 74(dia.) × 108(L)mm
(max. width of 116mm)
(3 × 4 3/8 inches)
(max. width of 4 5/8 inches)
Mass: 600g (1 lb 5 oz)

## MVA-41A

### Microscope adaptor

•For mounting the DXC-327BP/950P/930P series onto various types of microscopes

Dimensions: 50(dia.) × 77(L)mm
(2 × 3 1/8 inches)
Mass: 180g (6 oz)

## MVA-265

**Operation microscope adaptor** (one way)

•For 1/2-inch video camera with bayonet mount (DXC-950P/930P)
•For Carl Zeiss OPMI series/TOPCON 600 series

| | |
|---|---|
| Video camera mount: | Bayonet |
| Applicable microscope: | Operation microscope |
| Dimensions: | 148(W) × 92(H) × 50(D)mm ($5\frac{7}{8} \times 3\frac{5}{8} \times 2$ inches) |
| Mass: | 550g (1 lb 3 oz) |

## MVA-365

**Operation microscope adaptor** (one way)

•For 2/3-inch video camera with bayonet mount
•For Carl Zeiss OPMI series/TOPCON 600 series

| | |
|---|---|
| Video camera mount: | Bayonet |
| Applicable microscope: | Operation microscope |
| Dimensions: | 80(W) × 154(H) × 86(D)mm ($3\frac{1}{4} \times 6\frac{1}{8} \times 3\frac{1}{2}$ inches) |
| Mass: | 650g (1 lb 7 oz) |

## MVA-380

**Operation microscope adaptor** (two way)

•For 2/3-inch video camera with bayonet mount
•For Carl Zeiss OPMI series/TOPCON 600 series
•Focus can be remotely controlled by the supplied remote controller

| | |
|---|---|
| Video camera mount: | Bayonet |
| Applicable microscope: | Operation microscope |
| Dimensions: | 70 (W) × 94 (H) × 184 (D)mm ($2\frac{7}{8} \times 3\frac{3}{4} \times 7\frac{1}{4}$ inches) |
| Mass: | 750g (1 lb 10 oz) |

## Video camera accessory combinations

| | | DXC-D30P | DXC-637P | DXC-327BP | DXC-950P | DXC-930P | DXC-151AP | DXC-107AP | DXC-C1MDP |
|---|---|---|---|---|---|---|---|---|---|
| Camera control unit | CCU-M7P | ○*1 | ○*1 | ○*2 | | ○ | | | |
| | CCU-M5P | ○*5 | ○ | ○ | ○ | ○ | | | |
| AC adaptor | CMA-8ACE | ○ | ○ | ○ | | | | | |
| | CMA-D2CE | | | | ○ | ○ | ○ | ○ | |
| | CMA-D7CE | | | | | | | ○ | |
| | YS-W250P | | | | | | | ○ | |
| Viewfinder | DXF-701CE | ○ | | | | | | | |
| | DXF-601CE | | ○ | ○ | | | | | |
| | DXF-501CE | | ○ | ○ | | | | | |
| | DXF-40BCE | | ○ | ○ | | | | | |
| | DXF-50BCE | | ○ | ○ | | | | | |
| Carrying case | LC-420 | | | ○ | | | | | |
| | LC-421 | ○ | ○ | | | | | | |
| | LC-304SFT | ○ | ○ | ○ | | | | | |
| Tripod adaptor | VCT-12 | | | | | | | | |
| | VCT-14 | ○ | ○ | ○ | | | | | |
| | VCT-U14 | ○ | ○ | ○ | | | | | |
| Intercom holder | DR-100 | ○ | ○ | ○ | | | | | |
| Microscope/endoscope adaptor | MVA-12 | | | | | | ○ | △*3 | △*3 |
| | MVA-20 | ○ | ○ | | | | | | |
| | MVA-33 | ○ | ○ | | | | | | |
| | MVAC-33 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | MVA-40 | | | ○ | ○ | ○ | | | |
| | MVA-41A | | | ○ | ○ | ○ | | | |
| | MVA-265 | | | | ○ | ○ | | | |
| | MVA-365 | ○ | ○ | | | | | | |
| | MVA-380 | ○ | ○ | | | | | | |
| | ZBB/ZSV | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Others | DC-520 | ○ | ○ | ○ | | | | | |
| | CAC-4 | ○ | ○ | ○ | | | | | |
| | CAC-12 | ○ | ○ | ○ | | | | | |
| | RM-M7G | ○ | ○*1 | ○*2 | | | | | |
| | CA-327P | ○*4 | ○*4 | ○*4 | | | | | |
| | CA-537P | ○ | ○ | ○ | | | | | |
| | CA-511 | ○ | ○ | ○ | | | | | |
| | CA-512P | ○ | ○ | | | | | | |
| | CA-513 | ○ | ○ | ○ | | | | | |
| | CA-325AP | ○ | ○ | ○ | | | | | |
| | CA-325B | ○ | ○ | ○ | | | | | |
| | LO-32BMT | | | ○ | ○ | ○ | | | |
| | RM-C950 | | | ○ | ○ | | | | |
| | RM-930 | | | | △ | ○ | | | |

○ Recommendable △ Usable

*1 Gamma control cannot be used.
*2 Knee and gamma controls cannot be used.
*3 Although the MVA-12 is the Microscope Adaptor for 2/3-inch video cameras, it can also be used with the DXC-C1/107AP. In this case, the effective viewing area is changed.
*4 Available for CA-327P models with serial No. 40101 and above.
*5 Matrix (STD, H.SAT, FL) cannot be controlled.

## VSF-2000D (by Heiwa)
**Tripod/dolly**

•Suitable for DXC-D30P/637P/327BP, EVW series, UVW-100BP
•For studio use
•Equipped with two panning rods

Minimum/Maximum height:
700mm/1400mm
(27 5/8 inches/55 1/8 inches)
(without dolly)
Load capacity:
15kg (33 lb 1 oz)
Mass: 10.5kg (22 lb 2 oz) with dolly

## VSF-L-20 (by Heiwa)
**Carrying bag for VSF-2000D**

Mass: 3.5kg (7 lb 11 oz)

## LIBEC 50SD (by Heiwa)
**Tripod/dolly/carrying case**

•Suitable for DXC-D30P/637P/327BP, EVW series, UVW-100BP
•Convenient brace as a standard equipment
•For field use
•Equipped with two extendable panning rods

Minimum/maximum height:
925mm/1495mm
(36.4 inches/58.9 inches)
Load capacity:
10kg (22 lb)
Mass: 9kg (19 lb 8 oz)
Supplied accessories:
Dolly carrying bag, Panning rods, Spreader

## LIBEC 60SD
## LIBEC 70SD (by Heiwa)
**Tripod/dolly/carrying bag/spreader**

•Suitable for DXC-D30P/637P/327BP, EVW series, UVW-100BP
•High efficiency and high performance equipped with patented counter balanced tilting system
•For field use
•Equipped with two extendable panning rods

Minimum/maximum height:
60SD; 810mm/1580mm
(31.9 inches/62.2 inches)
70SD; 820mm/1595mm
(32 3/8 inches/62 7/8 inches)
(without dolly)
Load capacity:
60SD; 13kg (29 lb)
70SD; 15kg (33 lb 1 oz)
Mass: 60SD; 11kg (24 lb 10 oz)
70SD; 11.2kg (24 lb 5 oz)
Supplied accessories:
Dolly, Carrying bag, Panning rods, Spreader

## LIBEC 80SD (by Heiwa)
**Tripod/dolly/carrying case**

•Suitable for DXC-D30P/637P/327BP, EVW series, UVW-100BP, etc.
•Serial drag and counter balance system
•Recommended for field use
•Equipped with two extendable panning rods

Minimum/maximum height:
560mm/1645mm
(22 inches/64.7 inches)
Load capacity:
17kg (37 lb)
Mass: 13kg (26 lb 1 oz)
Supplied accessories:
Dolly, Carrying bag, Panning rods, Spreader

## LIBEC 70PD (by Heiwa)
## PEDESTAL SYSTEM

•Suitable for DXC-D30P/637P/327BP, EVW series, UVW-100BP
•Air can be pumped into a column even while a camera is mounted on the pedestal
•Highly suitable for small studios, event hall and hospitals

| | |
|---|---|
| Minimum/maximum height: | 955mm/1710mm (37 5/8 inches/67 1/2 inches) |
| Load capacity: | 30kg (66 lb 2 oz) |
| Mass: | 21kg (46 lb 5 oz) |
| Supplied accessories: | Pedestal, Head, Pan handles, Scenario plate, Low angle adapter |

## System 14 (by Sachtler)

### Video 14/75 Fluid head/Tripod S14 long/Spreader SP14/Cover 14pan

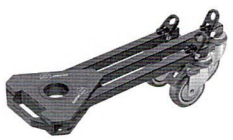
•Suitable for DXC-D30P/637P327BP, EVW aeries, UVW-100BP, etc.
•The patented Sachtler damping system ensures jerk free, precise and smooth camera movement, over a wide temperature range between –40°C (–40°F) to 60°C (140°F)
•Equipped with two panning bars

| | |
|---|---|
| Minimum/Maximum height: | 790mm/1540mm (31 1/8 inches/60 3/4 inches) (with spreader) |
| Load capacity: | 15kg (33 lb 1 oz) |
| Mass: | 8kg (17 lb 10 oz) |
| Supplied accessories: | Spreader, two pan bars, carrying cover |

Optional accessory:

**Dolly 14II Code No. 7051**
•The camera becomes mobile with the Dolly 14II for the studio use
•Can be compactly folded together by pressing a button and carried by using the built in handle

Mass: 4.4 kg (9 lb 11 oz)



Dolly 14II

## System 18 Plus ENG 2 MCF

(by Sachtler)

### Video 18 Plus Fluid head/Tripod ENG 2 CF/Off-ground spreader/Rubber feet/Paaded bag ENG 2

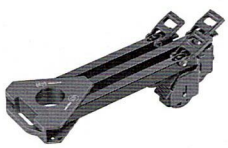
•Suitable for DXC-D30P/637P327BP, EVW aeries, UVW-100BP, etc.
•New Video 18 Plus head has an illuminated bubble, Touch & Go camera lock for one hand operation, a tilt range of 180° under any load and many other extras
•With the two stage carbon fibre tripod and off-ground spreader, this system offers the optimum for any portable camera
•Equipped with two extendable pan bars

| | |
|---|---|
| Minimum/maximum height: | 580mm/1665mm (22.8 inches/65.6 inches) |
| Load capacity: | 25kg (55 lb) |
| Mass: | 9.5kg (20 lb 15 oz) |
| Temperature range: | –40 to 60°C (–40 to 140°F) |
| Supplied accessories: | Off-ground spreader, Rubber feet, Two pan bars, Paaded bag |

Optional accessory:

**Dolly S Code No. 7065**
•Through the angle lock of the spinning wheel and the independent wheel brake, defined circles and precise parallel movements can be made
•For studio use
•Can be folded together and easily carried with it's built in handle

Mass: 4.45kg (9 lb 13 oz)



Dolly S

## Caddy System 01
## Code No. CAD01 (by Sachtler)

- Suitable for DXC-D30P/637P/327BP, EVW series,UVW-100BP, etc.
- The patented Sachtler damping system ensures jerk free, precise and smooth camera movement, over a wide temperature range
- Equipped with one pan arm, 7+7 step fluid damping
- Sachtler flip switch fast balancing system
- Touch & Go quick camera locking system with a sliding range of 60mm

Minimum/Maximum height:
810mm/1580mm
(31.9 inches to 62.3 inches)
Load capacity:
12kg (26.4 lb)
Mass: 7.1kg (15.6 lb)
Supplied accessories:
Carbon fiber tripod, CF100long
Lightweight spreader, SP100
Transport cover, Cover 100

## Vision 5-ST Package

(by Vinten)

**Head/Tripod/Spreader/Soft Bag**

•The high quality original "perfect-balance" system
•Suitable for DXC-D30P/637P/327BP, EVW series, UVW-100BP

Minimum/maximum height:
534mm/1704mm
(21 inches/67 inches)
(with spreader)
Load capacity:
9kg (20 lb)
Mass: 8.0kg (17 lb 10 oz) (with bag)
Tilt range: +85°/–75°
Supplied accessories:
Spreader, Soft bag
Optional accessory:
Lightweight dolly (3319-3ST)

## Vision 10-ST Package

(by Vinten)

**Head/Tripod/Spreader/Soft Bag**

•The high quality original "perfect-balance" system
•Suitable for DXC-D30P/637P/327BP, EVW series, UVW-100BP

Minimum/maximum height:
549mm/1719mm
(21 5/8 inches/67 7/8 inches)
Load capacity:
14kg (30 lb 14 oz)
Mass: 8.3kg (18 lb 5 oz) (with bag)
Tilt range: +90°/–90°
Supplied accessories:
Spreader, Soft bag
Optional accessory:
Lightweight dolly (3319-3ST)

## LENSES FOR DXC-D30P/637P, PVW-D30P/367P and DSR-130P camcprder (2/3-inch Bayonet mount type, 12-pin connector)

| | J8 × 6B IRS | J15a × 8B IRS | J15 × 9.5B IRS | YJ17 × 9.5B KRS | J20a × 8B IRS |
|---|---|---|---|---|---|
| Image format | 2/3-inch | 2/3-inch | 2/3-inch | 2/3-inch | 2/3-inch |
| Mount | Sony bayonet | Sony bayonet | Sony bayonet | Sony bayonet | Sony bayonet |
| Focal length | 6 to 48mm | 8 to 119mm | 9.5 to 143mm | 9.5 to 162mm | 8 to 160mm |
| Zoom ratio | 8× | 15× | 15× | 17× | 20× |
| Zoom control | Manual & motorized | Manual & motorized | Manual & motorized | Manual & motorized | Manual & motorized |
| Iris control | Auto & manual | Auto & manual | Auto & manual | Auto & manual | Auto & manual |
| Maximum aperture ratio | 1.7 | 1.7 | 1.8 | 1.8 | 1.7 |
| Minimum object distance | 0.3m | 0.65m | 0.95m | 0.95m | 0.9m |
| Zoom extender | 2.0× | 2.0× | 2.0× | — | 2.0× |
| Macro | — | ○ | ○ | ○ | ○ |
| Filter size | 105mmø | 82mmø | 82mmø | 82mmø | 105mmø |
| Mass | 1.7 kg (3 lb 12 oz) | 1.4kg (3 lb 2 oz) | 1.6kg (3 lb 8 oz) | 1.45kg (3 lb 3 oz) | 1.75kg (3 lb 14 oz) |
| Dimensions | 233mm(L) (9 1/4 inches) | 266.9mm(L) (8 1/4 inches) | 186mm(L) (7 3/8 inches) | 167.3mm(L) (6 5/8 inches) | 232.6mm(L) (9 1/4 inches) |
| Note | By Canon | By Canon | By Canon | By Canon | By Canon |

| | A8.5 × 5.5BEVM-28 | A15 × 8BEVM-28 | VCL-916BYA | A16 × 9BERM-28 | A18 × 8.5BEVM-28 |
|---|---|---|---|---|---|
| Image format | 2/3-inch | 2/3-inch | 2/3-inch | 2/3-inch | 2/3-inch |
| Mount | Sony bayonet | Sony bayonet | Sony bayonet | Sony bayonet | Sony bayonet |
| Focal length | 5.5 to 47mm | 8 to 120mm | 9 to 144mm | 9 to 144mm | 8.5 to 153mm |
| Zoom ratio | 8.5× | 15× | 16× | 16× | 18× |
| Zoom control | Manual & motorized | Manual & motorized | Manual & motorized | Manual & motorized | Manual & motorized |
| Iris control | Auto & manual | Auto & manual | Auto & manual | Auto & manual | Auto & manual |
| Maximum aperture ratio | 1.7 | 1.7 | 1.8 | 1.8 | 1.7 |
| Minimum object distance | 0.3m | 0.75m | 0.9m | 0.9m | 0.75m |
| Zoom extender | 1.7× | 2.0× | — | 2.0× | 2.0× |
| Macro | ○ | ○ | ○ | ○ | ○ |
| Filter size | 95mmø | 82mmø | 77mmø | 77mmø | 95mmø |
| Mass | 1.82kg (4 lb) | 1.38kg (3 lb 1 oz) | 1.2kg (2 lb 10 oz) | 1.35kg (3 lb) | 1.49kg (3 lb 6 oz) |
| Dimensions | 235mm(L) (9 3/8 inches) | 189mm(L) (7 1/2 inches) | 165mm(L) (6 1/2 inches) | 183.8mm(L) (7 1/4 inches) | 201.5mm(L) (8 inches) |
| Note | By Fujinon | By Fujinon | By Fujinon | By Fujinon | By Fujinon |

## LENSES FOR DXC-327BP, EVW-300, UVW-100BP (1/2-inch Bayonet mount type, Hot-shoe connector)

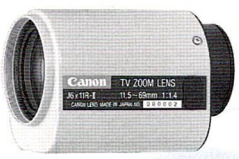
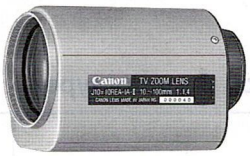
| | VCL-714BX | VCL-713BX | PH15 × 7B IRS |
|---|---|---|---|
| Image format | 1/2-inch | 1/2-inch | 1/2-inch |
| Mount | Sony 1/2-inch bayonet | Sony 1/2-inch bayonet | Sony 1/2-inch bayonet |
| Focal length | 7.5 to 105mm | 7.5 to 97.5mm | 7 to 105mm |
| Zoom ratio | 14× | 13× | 15× |
| Zooming control | Manual & motorized | Manual & motorized | Manual & motorized |
| Iris control | Auto & manual | Auto & manual | Auto & manual |
| Maximum aperture ratio | 1.4 | 1.4 | 1.4 |
| Minimum object distance | 1.1m | 1.0m | 0.95m |
| Zoom extender | — | — | 2.0× |
| Filter size | 72mmø | 72mmø* | 82mmø |
| Mass | 11kg (2 lb 6 oz) | 910g (2 lb) | 1.6kg (3 lb 8 oz) |
| Dimensions | 186mm(L) (7 3/8 inches) | 147.5mm(L) (5 7/8 inches) | 190.2mm(L) (7 1/2 inches) |
| Lens connector | Hot-shoe type | Hot-shoe type | Hot-shoe type |
| Notes | By Fujinon | By Canon | By Canon |

*82mmø Filter is also usable by fitting it in the lens hood.

## LENSES FOR DXC-327BP, EVV-300, UVW-100BP (1/2-inch Bayonet mount type, Hot-shoe connector)

| | | | |
|---|---|---|---|
| | S16 × 6.7BRM-18 | S16 × 6.7BERM-18 | YH17 × 7 KRS |
| Image format | 1/2-inch | 1/2-inch | 1/2-inch |
| Mount | Sony 1/2-inch bayonet | Sony 1/2-inch bayonet | Sony 1/2-inch bayonet |
| Focal length | 6.7 to 107mm | 6.7 to 107mm | 7 to 119mm |
| Zoom ratio | 16× | 16× | 17× |
| Zooming control | Manual & motorized | Manual & motorized | Manual & motorized |
| Iris control | Auto & manual | Auto & manual | Auto & manual |
| Maximum aperture ratio | 1.4 | 1.4 | 1.4 |
| Minimum object distance | 0.9m | 0.9m | 0.95m |
| Zoom extender | — | 2.0× | — |
| Filter size | 77mmø | 77mmø | 82mmø |
| Mass | 1.2kg (2 lb 10 oz) | 1.35kg (3 lb) | 1.45kg (3 lb 3 oz) |
| Dimensions | 165mm(L) (6 1/2 inches) | 188.5mm(L) (7 1/2 inches) | 168.9mm(L) (6 3/4 inches) |
| Lens connector | Hot-shoe type | Hot-shoe type | Hot-shoe type |
| Notes | By Fujinon | By Fujinon | By Canon |

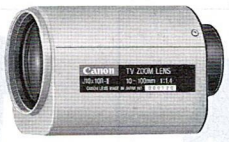
## LENSES FOR DXC-151AP (2/3-inch C mount type)

| |  |  | |
|---|---|---|---|
| | J6 × 11REA-IA-II* | J10 × 10REA-IA-II* | VCL-1106YM |
| Mount | C | C | C |
| Focal length | 11.5 to 69mm | 10 to 110mm | 11.5 to 69mm |
| Zoom ratio | 6× | 10× | 6× |
| Zoom control | Remote | Remote | Manual |
| Iris control | Auto | Auto | Manual |
| Maximum aperture ratio | 1.4 | 1.4 | 1.4 |
| Filter size | 52mmø | 62mmø | 46mmø |
| Supplied accessory | Remote control box CC-8T-II, MD cable (10m) | Remote control box CC-8T-II, MD cable (10m) | — |
| Mass | Lens: 500g (1 lb 2 oz) CC-8T-II: 1.3kg (2 lb 14 oz) | Lens: 700g (1 lb 9 oz) CC-8T-II: 1.3kg (2 lb 14 oz) | 410g (14 oz) |
| Dimensions | Lens: 60(W) × 70(H) × 102.5(D)mm (2 3/8 × 2 7/8 × 4 1/8 inches) | Lens: 80(W) × 70(H) × 122.3(D)mm (3 1/4 × 2 7/8 × 6 1/2 inches) | 58(dia.) × 107.8(L)mm (2 3/8 × 4 1/4 inches) |
| Power requirements | AC100/117/220/240V, 50/60Hz (CC-8T-II) | AC100/117/220/240V, 50/60Hz (CC-8T-II) | — |
| Notes | By Canon | By Canon | By Canon |

* Auto-iris control by the E-E amps, which are installed in the lenses, makes the J6 × 11REA-IA-II and J10 × 10REA-IA-II particularly suitable for multi-camera operation by a single remote control box.

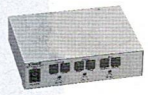
## LENSES FOR DXC-151AP (2/3-inch C mount type)

J6 × 11R-II
J6 × 11REA-II



J10 × 10R-II
J10 × 10REA-II

CC-7T-II (Supplied to J6 × 11REA-II, J10 × 10REA-II)
Dimensions: 170(W) × 45(H) × 130(D)mm
($6^{3}/_{4}$ × $1^{13}/_{16}$ × $5^{1}/_{8}$ inches)



CC-8T-II (Supplied to J6 × 11R-II, J10 × 10R-II, J6 × 11REA-IA-II, J10 × 10REA-IA-II, PH6 × 8REA-IA-II, PH10 × 8REA-IA-II)
Dimensions: 170(W) × 45(H) × 130(D)mm
($6^{3}/_{4}$ × $1^{13}/_{16}$ × $5^{1}/_{8}$ inches)

| | J6 × 11R-II | J6 × 11REA-II* | J10 × 10R-II | J10 × 10REA-II* |
|---|---|---|---|---|
| Mount | C | C | C | C |
| Focal length | 11.5 to 69mm | 11.5 to 69mm | 10 to 110mm | 10 to 110mm |
| Zoom ratio | 6× | 6× | 10× | 10× |
| Zoom control | Remote | Remote | Remote | Remote |
| Iris control | Remote | Remote | Remote | Remote |
| Maximum aperture ratio | 1.4 | 1.4 (1.4-approx. F360) | 1.4 | 1.4 |
| Filter size | 52mmø | 52mmø | 62mmø | 62mmø |
| Supplied accessory | Remote control box CC-8T-II, MD cable (10m) | Remote control box CC-7T-II, MD cable (10m) | Remote control box CC-8T-II, MD cable (10m) | Remote control box CC-7T-II, MD cable (10m) |
| Mass | Lens: 500g (1 lb 2 oz) CC-8T-II: 1.3kg (2 lb 14 oz) | Lens: 500g (1 lb 2 oz) CC-7T-II: 1.3kg (2 lb 14 oz) | Lens: 700g (1 lb 9 oz) CC-8T-II: 1.3kg (2 lb 14 oz) | Lens: 700g (1 lb 9 oz) CC-7T-II: 1.3kg (2 lb 14 oz) |
| Dimensions | Lens: 60(W) × 70(H) × 102.5(D)mm ($2^{3}/_{8}$ × $2^{7}/_{8}$ × $4^{1}/_{8}$ inches) | Lens: 60(W) × 70(H) × 102.5(D)mm ($2^{3}/_{8}$ × $2^{7}/_{8}$ × $4^{1}/_{8}$ inches) | Lens: 80(W) × 70(H) × 122.3(D)mm ($3^{1}/_{4}$ × $2^{7}/_{8}$ × $6^{1}/_{2}$ inches) | Lens: 80(W) × 70(H) × 122.3(D)mm ($3^{1}/_{4}$ × $2^{7}/_{8}$ × $6^{1}/_{2}$ inches) |
| Power requirements | AC100/117/220/240V, 50/60Hz (CC-8T-II) | AC100/117/220/240V, 50/60Hz (CC-7T-II) | AC100/117/220/240V, 50/60Hz (CC-8T-II) | AC100/117/220/240V, 50/60Hz (CC-7T-II) |
| Notes | By Canon | By Canon | By Canon | By Canon |

*For the J6 × 11REA-II and J10 × 10REA-II lenses, the E-E amp is installed in the CC-7T-II remote control box , whereas, the E-E amp for the J6 × 11REA-IA-II and J10 × 10REA-IA-II is installed in the lenses.

## LENSES FOR DXC-C1MDP/107AP (1/2-inch C mount type)

| | PH6 × 8REA-IA-II** | PH10 × 8REA-IA-II** | PHF6 1.2EA-II |
|---|---|---|---|
| Mount | C | C | C |
| Focal length | 8 to 48mm | 8 to 80mm | 6mm |
| Zoom ratio | 6× | 10× | — |
| Zoom control | Remote | Remote | — |
| Iris control | Auto | Auto | Auto |
| Maximum aperture ratio | 1.0 | 1.2 | 1.2 |
| Filter size | 52mmø | 62mmø | 43mmø |
| Supplied accessory | Remote control box CC-8T-II, MD cable (10m) | Remote control box CC-8T-II, MD cable (10m) | — |
| Mass | Lens: 500 g (1 lb 2 oz) CC-8T-II: 1.3kg (2 lb 14 oz) | Lens: 700g (1 lb 9 oz) CC-8T-II: 1.3kg (2 lb 14 oz) | 95g (3.4 oz) |
| Dimensions | Lens: 60(W) × 70(H) × 96.6(D)mm ($2^{3}/_{8}$ × $2^{7}/_{8}$ × $3^{7}/_{8}$ inches) | Lens: 70(W) × 80(H) × 126.6(D)mm ($2^{7}/_{8}$ × $3^{1}/_{4}$ × 5 inches) | 56.2(W) × 58(H) × 37.8(D)mm ($2^{1}/_{4}$ × $2^{3}/_{8}$ × $1^{1}/_{2}$ inches) |
| Power requirements | AC100/117/220/240V, 50/60Hz (CC-8T-II) | AC100/117/220/240V, 50/60Hz (CC-8T-II) | — |
| Notes | By Canon | By Canon | By Canon |

**Auto-iris control by the E-E amp, which are installed in the lenses, makes the PH6 × 8REA-IA-II and PH10 × 8REA-IA-II particularly suitable for multi-camera operation by a single remote control box.

## LENSES FOR DXC-950P/930P (1/2-inch Bayonet mount type)

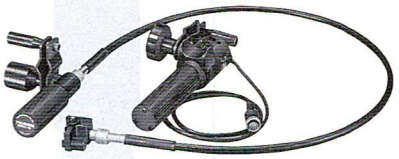
| | | | | | |
|---|---|---|---|---|---|
| | VCL-707BXM | VCL-712BXEA | VCL-714BXEA | VCL-716BXEA | YH17X7 KTS B (by Canon) |
| Mount | Bayonet | Bayonet | Bayonet | Bayonet | Bayonet |
| Focal length | 7.5 to 52.5mm | 7.5 to 90mm | 7.5 to 105mm | 7 to 112mm | 7 to 119mm |
| Zoom ratio | 7× | 12× | 14× | 16× | 17× |
| Zoom control | Manual | Remote | Remote | Remote | Remote |
| Focus control | Manual | Remote | Remote | Remote | Remote |
| Iris control | Manual | Remote | Remote | Remote | Remote |
| Maximum aperture ratio | 1.6 | 1.4 | 1.4 | 1.4 | 1.4 |
| Minimum object distance | 0.3m | 1.1m | 1.1m | 1.0m | 0.95m |
| Macro | Not applicable | Applicable | Applicable | Applicable | Applicable |
| Filter size | M58 × 0.75mm | M72 × 0.75mm | M72 × 0.75mm | M86 × 1.0mm | M82 × 0.75mm |
| Mass | 560 g (1 lb 4 oz) | 1.25 kg (2 lb 12 oz) | 1.13 kg (2 lb 6 oz) | 1.8kg (3 lb 15 oz) | 1.7kg (3 lb 12 oz) |
| Dimensions | 60(dia.) × 125(L)mm (2 3/8 × 5 inches) | 110(dia.) × 184.2(L)mm (4 3/8 × 7 3/8 inches) | 110(dia.) × 185.9(L)mm (4 3/8 × 7 3/8 inches) | 120.5(W) × 100(H) × 178(D)mm (4 3/4 × 4 × 7 1/8 inches) | 128(W) × 97.5(H) × 168.9(D)mm (5 1/8 × 3 7/8 × 6 3/4 inches) |
| Notes | — | Zoom/Focus/Iris functions can be remotely controlled from the RM-C950/930 | | | |

## LENSES W/O REMOTE CONTROL BOX

| | |
|---|---|
| J6 × 11R-II-A | Lenses with "-A" added are not equipped with CC-7T-II or CC-8T-II remote control boxes and have been made available for use with the PTH-10S system |
| J6 × 11REA-II-A | |
| J6 × 11REA-IA-II-A | |
| J10 × 10R-II-A | |
| J10 × 10REA-II-A | |
| J10 × 10REA-IA-II-A | |
| PH6 × 8REA-IA-II-A | |
| PH10 × 8REA-IA-II-A | |

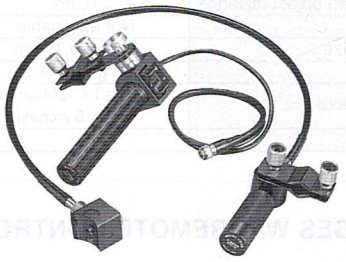
## LO-23
**Flexible cable unit**
•Servo zooming and manual focusing for Fujinon Lens, such as VCL-916 BYA and VCL-714BX

Cable length: 1m (3.3 ft)
Mass: 1.2kg (2 lb 10 oz)



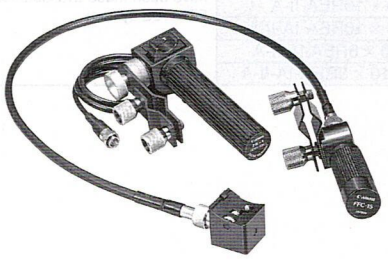
## LO-26
**Flexible cable unit**
•Servo zooming and manual focusing for Canon Lenses

Cable length: 1m (3.3 ft)
Mass: 1.1kg (2 lb 7 oz)



## LO-27
**Flexible cable unit**
•Servo zooming and manual focusing only for VCL-810BX(Canon).

Cable length: 1m (3.3 ft)
Mass: 1.1kg (2 lb 7 oz)



## RM-S2/S5 series (by Fujinon)
**Remote controller**
•RM-S2 series for servo zooming and focusing
•RM-S5 series for servo zooming and manual focusing
RM-S2 series: RM-S2C/S2D
RM-S5 series: RM-S5D

RM-S2

## MS-21 (by Canon)
**Remote controller**
•Servo zooming and manual focusing

**SS-31** (by Canon)
**Full servo controller**
•Servo zooming and focusing

## Combinations
## (lens and remote controller or flexible cable unit)

| Zoom lens | Lens remote control unit | |
|---|---|---|
| | Servo zoom/servo focus | Servo zoom/manual focus |
| J8 × 6B IRS | SS-41-8 | MS-21 |
| J15a × 8B IRS | SS-410-15 | MS-210 |
| J15 × 9.5B IRS | SS-31 | MS-21 |
| YJ17 × 9.5B KRS | SS-15 | LO-26 |
| J20a × 8B IRS | SS-41-20 | MS-210 |
| A8.5 × 5.5BEVM-28 | RM-S2D | RM-S5D |
| A15 × 8BEVM-28 | RM-S2D | RM-S5D |
| VCL-916BYA | RM-S2C | LO-23 |
| A16 × 9BERM-28 | RM-S2C | LO-23 |
| A18 × 8.5BEVM-28 | RM-S2D | RM-S5D |
| VCL-712BX | – | LO-23 |
| VCL-713BX | FZ-15B | LO-26 |
| PH15 × 7B IRS | FZ-15B | LO-26 |
| S16 × 6.7BRM-18 | RM-S2C | LO-23 |
| S16 × 6.7BERM-18 | RM-S2C | LO-23 |
| YH17 × 7KRS | SS-15J | LO-26 |

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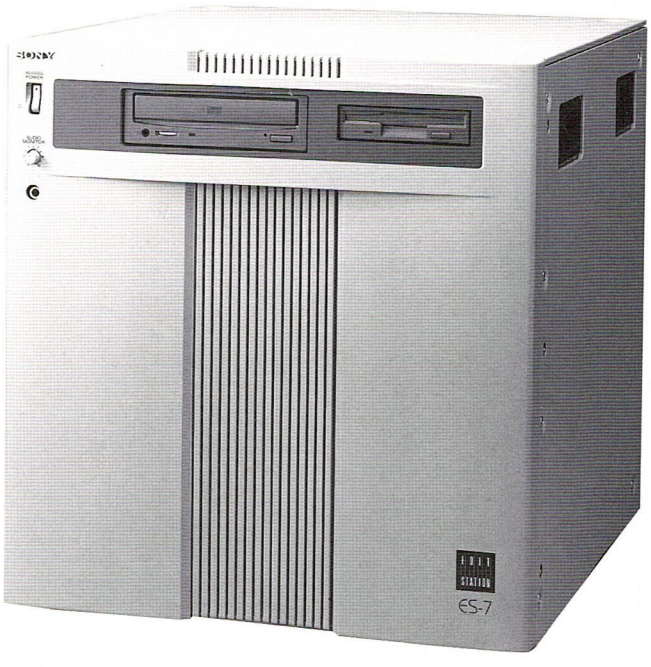
# ES-7

## EditStation

•The digital system for power production •Direct Digital Link with DSR-85P VTR •x4 Transferring capability when combined with the DSR-85P VTR •High picture quality •Hybrid operation capability including the unique Disk B-roll™ operation •SDI and QSDI digital interface capability with optional boards •2-channel playback and 1-channel recording for real-time layering •Background-job operation capability*1 •Sophisticated Graphical User Interface (GUI) provided for efficient operation •ClipLink operation to save valuable disk space and time •Superb performance DME Switcher •Multiple input/output formats provided •Direct touch graphics function to enable graphics creation to be performed directly on the live video •Fully automated audio-follow-video performance •EDL exchange capability*2 •Variable compression rate •Optional ESDraw kit available in addition to the standard TextComposer •Control panel available for intuitive operation




| | |
|---|---|
| Supplied | Computer, CD-ROM drive, floppy disk drive, mouse, keyboard, digital audio mixer, OS (Windows NT 3.51), Editing Manager (editing software), On-line manual, Printed installation manual and Tutorial guide |
| Optional accessories | Control Panel ESBK-7011<br>Basic DME Switcher Board ESBK-7021<br>3D Effect Board for Basic DME Switcher Board ESBK-7022<br>Advanced DME Switcher Board ESBK-7023<br>3D Effect Board for Advanced DME Switcher Board ESBK-7024<br>External Switcher Interface Board ESBK-7025<br>QSDI Interface Board ESBK-7031<br>SDI Interface Board ESBK-7032<br>Disk Recorder Board ESBK-7041<br>Disk Unit ESBK-7045<br>SCSI Option ESBK-7051<br>Ethernet Option ESBK-7052<br>SCSI Cable ESBK-7053<br>ESDraw ESBK-7071<br>EditStation Operation Manual ESBK-7091E/F/G<br>ESDraw Operation Manual ESBK-7092E/F/G |

## Specification

### General

| | |
|---|---|
| Power requirement | AC 220/240V, 50/60Hz |
| Operating voltage | AC 180 to 264V, 48 to 63Hz |
| Power consumption | Main Unit (ES-7): Approx. 450W<br>Disk Unit (ESBK-7045): Approx. 100W |
| Operating temperature | 5 to 35°C (41 to 95°F) |
| Dimensions | Main Unit (ES-7):<br>424 (W) × 431.6 (H) × 478 (D) mm<br>($16^3/_4 \times 17 \times 18^7/_8$ inches)<br>Disk Unit (ESBK-7045):<br>424 (W) × 88 (H) × 478 (D)mm<br>($16^3/_4 \times 3^1/_2 \times 18^7/_8$ inches)<br>Control Panel (ESBK-7011):<br>372 (W) × 74 (H) × 228 (D) mm<br>($14^3/_4 \times 3 \times 9$ inches) |
| Mass | Main Unit (ES-7):<br>35kg (77 lb 3 oz)<br>Disk Unit (ESBK-7045):<br>14kg (30 lb 14 oz)<br>Control panel (ESBK-7011):<br>1.7kg (3 lb 12 oz) |

### PC

| | |
|---|---|
| CPU | Pentium |
| OS | Windows NT 3.51 |
| Memory | 32MB |
| Hard disk drive | 1GB |
| Floppy disk drive | 1 × 720KB/1.44MB |
| CD-ROM drive | 1 × ATAPI, Quadruple (× 4) speed |
| Card slot | 32-bit PCI bus (33MHz) and 16-bit ISA bus |
| VGA | 1024 × 768, 65K colors, 72Hz refresh rate |
| Mouse | 1 × Mini Din 6-pin |
| Keyboard | 1 × Mini Din 6-pin |

### Video

| | |
|---|---|
| Analogue video inputs | 3 sources (P1/P2/R) selectable from Y/R-Y/B-Y, Composite or Y/C<br>BNC: Y/R-Y/B-Y, Composite<br>MiniDin 4-pin: Y/C<br>1 sources (AUX) selectable from Y/R-Y/B-Y, G/B/R/Sync., BNC<br>1 × Gen. Lock IN, BNC |
| Digital video inputs | 2 (P1, P2/R) × QSDI, BNC<br>3 (P1, P2, R) × SDI, BNC |
| Analogue video outputs | PGM & MONITOR outputs, Y/R-Y/B-Y, G/B/R/Sync., Composite and Y/C<br>BNC: Y/R-Y/B-Y, G/B/R/Sync., Composite<br>MiniDin 4-pin: Y/C<br>4 × Black Burst output, BNC |
| Digital video outputs | 1 × SDI PGM output (R), BNC<br>1 × QSDI PGM output (R), BNC |

### Audio

| | |
|---|---|
| Audio | Up to 22-ch input and 4-ch output |
| Analogue audio inputs | 4-ch × 3 sources (P1/P2/R), XLR 3-pin<br>2-ch × 1 sources (AUX), XLR 3-pin |
| Digital audio inputs | 2-ch × 1 source (AUX), selectable from AES/EBU or IEC-958 |
| Analogue audio outputs | LINE OUT: 4-ch, XLR 3-pin<br>MONITOR OUT: 2-ch (1/3 & 2/4), Pin-jack |
| Digital audio outputs | Multiplied as SDI/QSDI |

### Compression

| | |
|---|---|
| Compression scheme | DV Compression |

### DME Switcher

| | |
|---|---|
| Basic DME Switcher (ESBK-7021) | Y:R-Y:B-Y=4:1:1, 13.5MHz, 8-bit<br>Chromakey & luminance key: 1 bit (linear key)<br>Downstream keyer: 8 bit |
| Advanced DME Switcher (ESBK-7023) | Y:R-Y:B-Y=4:2:2, 13.5MHz, 8-bit<br>Chromakey & luminance key: 8 bit (linear key)<br>Downstream keyer: 8 bit |

### Control

| | |
|---|---|
| P1, P2, AUX & R | RS-422A, D-Sub 9-pin |
| GPI (Serial) | RS-232C, D-Sub 9-pin |
| GPI (Parallel) | Active low TTL, D-Sub 9-pin |
| Control Panel | D-Sub 15-pin |

### Graphics/title

| | |
|---|---|
| Pixel format | 4:2:2:4 (Y/R-Y/B-Y/Alpha) |
| Font | True type |
| Import format | BMP, TGA |

### Others

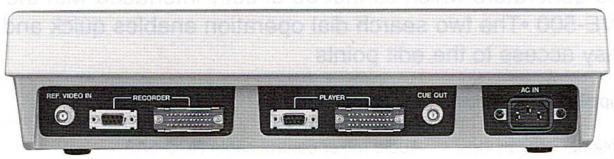
| | |
|---|---|
| EDL export/import format | Compatible with Sony BVE-2000/5000/9100 and CMX format |

*1 This function will be available in the spring of 1997.
*2 This function will be available in the winter of 1996.

# RM-450CE

## Editing control unit

•Can be connected to 33-pin equipped editing VTR and 9-pin equipped editing VTR on both the player side and recorder side •When a 9-pin equipped editing VTR is connected, the RM-450CE not only allows CTL based editing but also makes Time Code editing possible •Provides the Relative Time Code (RTC) editing mode, in which time code is used as an edit reference and time code progress is like CTL on the LED counter •The AUDIO COUNTER RESET function automatically sets the editing point first designated to "0:00:00:00" •Can use the Assemble and Insert (V/A1/A2) edit modes, and provides editing functions such as editing IN-POINT/OUT-POINT ENTRY, PREVIEW, TRIM, AUTO EDIT/END, REVIEW/JUMP, GO TO, AUDIO SPLIT, and LAST EDIT •The function keys are laid out to enable easy operation •Provides the JOG/SHUTTLE dials on both the player side and recorder side •Accepts REF. VIDEO IN (reference video input) for synchronized operation •Can memorize the pinch on delay and adjust the editing in-point automatically •Mode setting is very easy and convenient when using the preset switches on the front panel •A cue pulse out is provided for external equipment •Indicates the "Error" and error number on the LED counter along with a warning sound •A built-in self-diagnostic function improves serviceability and make maintenance easy




Supplied accessories:
- AC power cord
- Error message chart
- Operation manual

Optional accessories:
- 33-pin remote control extension cable RCC-15FT
- 9-pin remote control cable RCC-5G/10G/30G (for VO-9850P/9800P/EVO-9850P/9800P/UVW-1800P/1600P/BVU/PVW/BVW/BVH series VTR)
- Rack mount kit RMM-450 (for 19-inch EIA and SONY SU-512 rack)
- Double size table SU-450 (for SONY SU rack)

## Specifications

| | |
|---|---|
| Power requirements: | AC 198 to 264V, 48 to 63Hz |
| Power consumption: | 11W |
| Mass: | Approx. 3.1kg (6 lb 13 oz) |
| Dimensions: | 390(W) × 93(H) × 265(D)mm (15 × 3 3/4 × 10 1/2 inches) |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Edit reference: | CTL, SMPTE/EBU LTC, VITC |
| Reference video input: | 0.5Vp-p to 2.0Vp-p negative, 75Ω, unbalanced |
| External sync input: | 0.5Vp-p to 5.0Vp-p negative, 75Ω, unbalanced |
| Cue pulse signal: | Active low: low level 0 to 0.5V/high 3.5 to 5.0V |

# PVE-500

## Editing control unit

•Three VTR control capability in A/B roll editing •Serial switcher interface via 9-pin RS-422A connection •Both parallel and serial audio mixer interface capability •Handles TC (Time Code), CTL (Control Track Signal), and RTC (Relative Time Code) as editing reference •Assemble and Insert (V, A1, A2) editing capability •Features variable speed control over VTRs equipped with Dynamic Tracking function •Up to 99 edits can be stored in the built-in EDL memory •Audio split edit capability offers effective insertion of sound effects •Snapshot memory number in the DFS-500P and the DFS-300P can be stored and recalled by the Edit Number •Reference video input allows synchronized operation with other equipments •Equipped with an RS-232C interface allowing SAVE/LOAD of the EDL data onto a floppy disk •A GPI output enables basic control of peripheral equipments such as audio tape recorders and title generators which cannot be directly interfaced with the PVE-500 •The two search dial operation enables quick and easy access to the edit points

| | |
|---|---|
| Supplied accessories: | AC power cord |
| | Operation manual |
| Optional accessories: | Audio mixer control cable RCC-5AA |
| | 9-pin remote control cable RCC-5/10/30G |
| | Rack mount metal RMM-500 |

## Specification

**General**

| | |
|---|---|
| Power requirements: | AC 100/120/220 to 240V ±10%, 47.5 to 63Hz |
| Power consumption: | 11W maximum |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Dimensions: | 390(W) × 94(H) × 265(D)mm |
| | ($15^3/_8 \times 3^3/_4 \times 10^1/_2$ inches) |
| Mass: | 3.2kg (7 lb 8 oz) |

**Systems**

| | |
|---|---|
| Editing reference: | CTL, RTC, SMPTE/EBU Time Code |
| Edit accuracy: | ±0 frame with time code |
| | ±1 frame with CTL |
| Memory capacity: | 99 events |

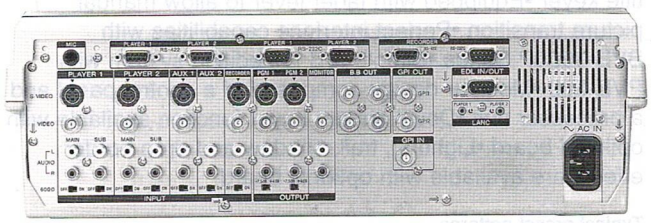
**Controls**

| | |
|---|---|
| VTR interface: | RS-422A 9-pin remote connector |
| Switcher interface: | RS-422A 9-pin remote connector |
| Mixer interface: | 9-pin serial/parallel switchable |
| Controllalble VTRs: | 1 recorder and up to 2 players |

# FXE-120P

•Integration of an editing controller, video switcher, audio mixer and digital effects generator •Three VTR cotnrol (RS-422/RS-232C) •LANC (Local Application Control bus system) interface for controlling home-use LANC VTRs and camcorders as player VTRs •Time code based editing •Equipped with two busses • GPI input/output •8-bit quantizing, 4:1:1 digital processing •Built-in Frame Synchronizers allow editing without a Time Base Corrector •140 wipe patterns •Digital effects (Mix Effect/Fade Effect/ Input Effects) •Built-in chromakeyer and luminance keyer) •Colour correction capability •25 different colour background •Editing memory for 99 events •Saving/ loading of EDL Data is possible

| | |
|---|---|
| Supplied Accessoreis | AC power cord (1)<br>Instruction manual (1)<br>User's guide (1)<br>LANC cord (2) |
| Optional Accessoreis | RCC-5/10/30G RS-422 remote cable<br>SMF-3036C (RS-232C remote cable, 9-pin to 25 -pin) |



## Specifications

**General**

| | |
|---|---|
| Signal system: | PAL |
| Power requirements: | AC 220 to 240 V ± 10%,<br>50/60Hz ± 5% |
| Power consumption: | Maximum 65W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Dimentions(W x H x D): | 424 x 138.5 x 437.5 mm<br>($16^{3}/_{4} \times 5^{1}/_{2} \times 17^{1}/_{4}$ inches) |
| Mass: | Approx. 7.3kg (16 lb 1 oz) |

**Systems**

| | |
|---|---|
| Time counter: | Internal time counter (x3) |
| Time count display range: | Time code: 00:00:00:00 to 3:59:59:29<br>CTL: ±9:59:59:29 Full edit mode |
| Editing mode: | Assemble edit: Video, Audio 1/2<br>Insert Edit: Video Audio 1/2<br>First edit, Time codd insert<br>Split edit, Dynamic Motion Control (DMC) |
| Eject type: | MIX, WIPE, SYNC-ROLL, CUT, MANUAL 1st Edit, Audio Split Edit, DMC Control |
| Edit reference: | CTL, LTC, SMPTE/EBU time code, 8mm time code, RC time code, DV time code |
| Edit Accuracy: | RS-422: ± 0 frame with TC, ±1 frame with CTL<br>RS-232C: ±1 frame with TC<br>LANC: ±5 frame with RC time code |
| Transition time range: | 0 to 999 (unit: frames) |
| Pinch-on Delay: | Simultaneous measurement of pinch-on delay for up to three VCRs connceted to RS-422/RS-232C/ LANC connectors |
| EDL memory capacity: | 99 edits |
| Split edit reference: | Audio or Video input |

**Control**

| | |
|---|---|
| VTR Interface: | RS-422: 9-pin<br>RS-232C: D-sub 9-pin<br>LANC: stereo mini-mini jack |
| Controllable VTR: | 1 recorder, up to 2 players |
| GPI interface: | GPI IN (BNC)<br>GPI OUT (BNC) × 2 |
| EDL Interface: | EDL IN/OUT (D-sub 9-pin) |

**Video**

| | |
|---|---|
| Video inputs | |
| Composite: | BNC × 4 unbalanced<br>(PLAYER 1, PLAYER 2, AUX1, RECORDER)<br>Video: 1.0 Vp-p, 75 ohms<br>Sync: 0.286 Vp-p<br>Burst: 0.286 Vp-p |
| S-Video | 4-pin x 4 unbalanced<br>Mini DIN 4-pin x 2, PGM1, PGM2<br>Y: 1.0 Vp-p, 75 ohms, sync negative<br>C: 0.286 Vp-p, 75 ohms<br>Bust sync: 0.286 Vp-p |

**Video Outputs**

| | |
|---|---|
| Composite: | BNC × 3, unbalanced<br>(PGM 1, 2, MONITOR)<br>Video: 1.0 Vp-p, 75 ohms<br>Sync: 0.286 Vp-p<br>Burst: 0.286 Vp-p |
| S-Video | 4-pin × 2 unbalanced<br>Sync: 0.286 Vp-p<br>Burst: 0.286 Vp-p |
| Black bust out: | BNC × 4, unbalanced<br>Sync: 0.286 Vp-p,<br>Burst: 0.286 Vp-p |

**Audio**

| | |
|---|---|
| Audio Inputs (stereo) | AUDIO L/R INPUT (phono jack), (2 channels × 5)<br>PLAYER 1 MAIN (2), SUB (2)<br>PLAYER 2 MAIN (2), SUB (S)<br>RECORDER (2)<br>AUX 1 (2)<br>AUX 2 (2)<br>Input impedence: selectable with 600 ohms terminal switch<br>Input level: –7.5 dBs (input impedance 47 kΩ or above, 600 kΩ switch OFF)<br>+4dBs (input impedance 600Ω, 600Ω switch ON) |
| Mic Input (manoural) | Phone × 1, unbalanced<br>Input level: -60 dBs,<br>Input impedance: more than 4.3 KΩ or above |
| Audio Outputs (stereo) | AUDIO L/R OUTPU (phono jack) × 6<br>PGM 1(2), PGM 2(2), MONITOR (2)<br>Output level : -7.5 dB/+4.0 dB selectable<br>Output Impedance: 47 KΩ (-7.5 dBs/+4.0dBs) |

**Signal Processing**

| | |
|---|---|
| Sampling rate: | Y: 910 fH (fH = 15.734kHz)<br>R-Y/ B-Y: 1/4 x 910 fH |
| Quantization: | Y/R-Y/B-Y: 8-bit |
| Frequency response: | 0 to 5 Mhz +1dB/ -1dB |
| Signal to noise ratio: | More than 53 dB |
| Y/C delay: | Less than 50 ns (Composite) |

**Recommended LANC VTRs**

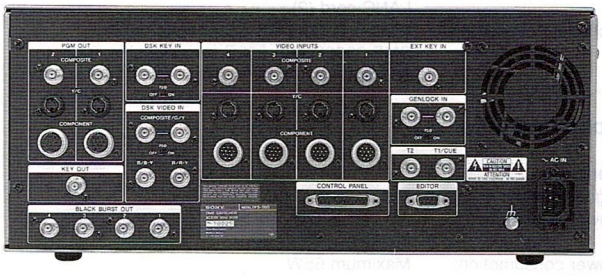
| | |
|---|---|
| Camcorders: | CCD-VX1E, CCD-TR2000E,<br>CCD-TR3E, CCD-V6000E,<br>CCD-V800E, CCD-TR3000E,<br>DCR-VX700E, DCR-VX1000E |
| Player VTR: | EV-S9000E, EV-C2000E, DHR-1000 |

# DFS-500P

## DME switcher

•Video switcher equipped with powerful digital multi effector •More than 300 factory preset effect patterns including non-linear digital effects •Up to 40 manually created effect patterns can be stored in the User Programme memory system for subsequent recall •Built-in two frame synchronizer accept non time base corrected video signals •4:1:1 digital component processing realizes high picture quality •Accepts component, composite and S-VIDEO signals to be processed simultaneously •Composed of 2 busses and 4 primary inputs •15 original background patterns •Up to 99 panel status storage in the Snap Shot memory system •Equipped with 5 individual colour matte generators •Built-in title keyer •Equipped with fader lever to allow manual picture transition •Perfect interface capabilities with BVE-3000P Series •Simple A/B roll editing system with PVE-500 •Modular design composed of a control panel and a processor unit •Down stream keyer function available with optional board •Lighting, trail, shadow and drop border effects are available with optional board

**Rear Panel of Processor**



**Typical preset patterns**

mosaic, mirror, negative, solarization, posterization
picture in picture, ripple wipe, sphere, page turn, page roll, split, slide, melt down, stream, flag

Supplied accessories:
- AC power cord
- 25-pin control cable, 10m
- Label 1 set
- Operation Manual

Optional accessories:
- BKDF-501P Trail and lighting board
  Provides drop border, shadow, trail and lighting effects.
- BKDF-502P DSK board
  Provides down stream keyer.
- BKDF-503 Rack mount kit
  Enables the control panel to be mounted onto the editing console.

## Specifications

**General**

Power requirements: AC 220/240V, 50/60Hz
Operating voltage: AC 180 to 264V, 48 to 63Hz
Power consumption: 140W
Operating temperature: 0 to 40°C (32 to 104°F)
Dimensions: Control Panel: 424(W) × 116(H) × 344(D)mm ($16\frac{3}{4} \times 4\frac{5}{8} \times 13\frac{5}{8}$ inches)
Processor Unit: 424(W) × 177(H) × 450(D)mm ($16\frac{3}{4} \times 7 \times 17\frac{3}{4}$ inches)
Mass: Control Panel: 3kg (6 lb 10 oz)
Processor Unit: 17kg (35 lb 4 oz)

**Input Signals**

VIDEO INPUTS 1 through 4
- Composite: BNC type (1 in each)
  VIDEO: 1.0Vp-p, 75Ω
  SYNC: 0.3Vp-p
  BURST: 0.3Vp-p
- Y/C: 4-pin (1 in each)
  Y: 1.0Vp-p, 75Ω
  C: 0.3Vp-p, 75Ω
  SYNC: 0.3Vp-p
- Component: 12-pin (1 in each)
  Y: 1.0Vp-p, 75Ω
  R-Y/B-Y: 0.525Vp-p, 75Ω

DSK VIDEO IN
- Composite/G/Y: BNC type
- Composite: VIDEO 1.0Vp-p, 75Ω
  SYNC 0.3Vp-p
  BURST 0.3Vp-p
  Y: 1.0Vp-p, 75Ω
  G: 0.7Vp-p, 75Ω
- B/B-Y: BNC type
  B-Y: 0.525Vp-p, 75Ω
  B: 0.7Vp-p, 75Ω
- R/R-Y: BNC type
  R-Y: 0.525Vp-p, 75Ω
  R: 0.7Vp-p, 75Ω

EXT KEY IN: BNC type 1.0Vp-p, 75Ω
DSK KEY IN: BNC type 1.0Vp-p, 75Ω
GEN LOCK IN: BNC type
Sync: 0.3Vp-p
Burst : 0.3Vp-p

**Output Signals**

PGM OUT 1 and 2
- Composite: BNC type
  VIDEO: 1.0Vp-p, 75Ω
  SYNC: 0.3Vp-p
  BURST: 0.3Vp-p
- Y/C: 4-pin
  Y: 1.0Vp-p, 75Ω
  C: 0.3Vp-p, 75Ω
  SYNC: 0.3Vp-p
- Component: 12-pin
  Y: 1.0Vp-p, 75Ω
  R-Y/B-Y: 0.525Vp-p, 75Ω

KEY OUT: BNC type: 1.0Vp-p, 75Ω
BLACK BURST OUT: BNC type
SYNC: 0.3Vp-p, 75Ω
BURST: 0.3Vp-p, 75Ω

**Signal Processing**

Sampling Rate: Y: 908fH (fH : 15.625 kHz)
R-Y/B-Y: 1/4 × 908fH
Quantization: Y/R-Y/B-Y: 8 bits
Linearity (Composite output):
- DG: Less than 3.5% composite input
  Less than 2% component/S input
- DP: Less than 2.5°composite input
  Less than 1° component/S input

Cross talk: Less than -50dB
Frequency response: 0 to 5 MHz +0.5dB/–1dB
S/N: More than 51dB (composite)
More than 55dB (Y/C, component)
Y/C delay: Less than 20ns (component)
Less than 50ns (composite)

**Control Signals**

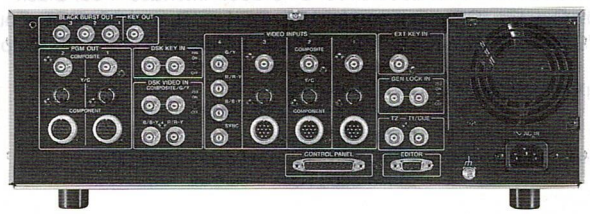
Editor: 9-pin remote
T1/T2, cue: BNC type
Control Panel: 25-pin remote

# DFS-300P

## DME switcher

•Video switcher equipped with powerful digital multi effector •More than 300 factory preset effect patterns including 2D digital effects •With the optional board BKDF-301P, 3D linear and non linear factory preset effect patterns can be added •Up to 20 manually created effect patterns can be stored in the User Programme memory system for subsequent recall •With the optional board BKDF-301P, up to 40 effect patterns can be manually created and stored in the User Programme memory system •Built-in two frame synchronizers accept non time base corrected video signals •4:1:1 digital component processing realizes high picture quality •Accepts component, composite and S-video signals •Accepts RGB signals for graphic image data processing •Composed of two busses and four primary inputs • 31 original background patterns •Up to 99 snapshots can be stored in the Snap Shot memory system •Equipped with five individual colour matte generator •Built-in chromakeyer, title keyer and colour correction controller •Equipped with fader lever to allow manual picture transition •Provides simple A/B roll or two machine editing system with PVE-500 •Modular design composed of a control panel and a processor unit •8-bit Down Stream Keyer function available with optional board BKDF-504P •3D and non-linear effects are available with optional board BKDF-301P

**Rear Panel of Processor**



**Typical preset patterns**

mosaic, mirror, negative, solarization, posterization, split, slide, melt down, stream, etc

| | |
|---|---|
| Supplied accessories: | AC power cable<br>25-pin control cable (10m)<br>Operation manual |
| Optional accessories: | BKDF-301P 3D effect board<br>BKDF-503 Rack mount kit<br>BKDF-504P DSK board |

## Specifications

**General**

| | |
|---|---|
| Power requirements: | AC220V or 240V, 50/60Hz |
| Operating Voltage: | AC180 to 264V, 48 to 63Hz |
| Power consumption: | 80W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Dimensions: | Control panel: 424(W) × 69(H) × 287(D)mm<br>($16\frac{3}{4} \times 2\frac{3}{4} \times 11\frac{3}{8}$ inches)<br>Processor: 424(W) × 132(H) × 450(D)mm<br>($16\frac{3}{4} \times 5\frac{1}{4} \times 17\frac{3}{4}$ inches) |
| Mass: | Control panel: 2.3kg (5 lb 1 oz)<br>Processor: 13.0kg (28 lb 10 oz) |

**Inputs/Outputs**

Primary video inputs 1 to 3/Programme video outputs:

| | | |
|---|---|---|
| Composite (PAL) | Connector: | BNC type (× 1, each) |
| | Video: | 1.0Vp-p, 75Ω |
| | Sync: | 0.3Vp-p |
| | Burst: | 0.3Vp-p |
| S-video (Y/C) | Connector: | DIN-4-pin (× 1, each) |
| | Y: | 1.0Vp-p, 75Ω |
| | C: | 0.3Vp-p, 75Ω, burst<br>Sync:0.3Vp-p |
| Component (Betacam) | | |
| | Connector: | 12-pin (× 1, each) |
| | Y: | 1.0Vp-p, 75Ω |
| | R-Y/B-Y: | 0.525Vp-p |

Primary video inputs 4:

| | | |
|---|---|---|
| Y/G | Connector: | BNC type |
| | Y: | 1.0Vp-p, 75Ω |
| | G: | 0.7Vp-p, 75Ω |
| R-Y/R | Connector: | BNC type |
| | R-Y: | 0.525Vp-p, 75Ω |
| | R: | 0.7Vp-p, 75Ω |
| B-Y/B | Connector: | BNC type |
| | B-Y: | 0.525Vp-p, 75Ω |
| | B: | 0.7Vp-p, 75Ω |
| Sync | Connector: | BNC type |
| | 0.3 to 4.0Vp-p, 75Ω | |

DSK Video Inputs:

| | | |
|---|---|---|
| Composite/G/Y (PAL) | | |
| | Connector: | BNC type (× 2, loop-through) |
| | Video: | 1.0Vp-p, 75Ω |
| | Sync: | 0.3Vp-p |
| | Burst: | 0.3Vp-p |
| | Y: | 1.0Vp-p, 75Ω |
| | G: | 0.7Vp-p, 75Ω |
| B/B-Y | Connector: | BNC type |
| | B-Y: | 0.525Vp-p |
| | B: | 0.7Vp-p, 75Ω |
| R/R-Y | Connector: | BNC type |
| | R-Y: | 0.525Vp-p |
| | R: | 0.7Vp-p, 75Ω |

EXT KEY IN/DSK KEY IN/KEY OUT:

| | | |
|---|---|---|
| | Connector: | BNC type (× 1, each) |
| | 1.0Vp-p, 75Ω | |

| | | |
|---|---|---|
| GEN LOCK IN: | Connector: | BNC type (× 2, loop-through) |
| | Video: | 1.0Vp-p, 75Ω |
| | Sync: | 0.3Vp-p |
| | Burst: | 0.3Vp-p |

BLACK BURST OUT 1 to 3:

| | | |
|---|---|---|
| | Connector: | BNC type (× 3) |
| | Sync: | 0.3Vp-p (75Ω) |
| | Burst: | 0.3Vp-p (75Ω) |

**Signal Processing**

| | |
|---|---|
| Frequency response: | 0 to 5MHz (Ref. 1MHz) +0.5dB/–1dB |
| Linearity: | DG 3.5% (composite input)<br>2.0% (component/S input)<br>DP 2.5° (composite input)<br>1.0° (component/S input) |
| Crosstalk: | –50dB |
| S/N: | 51dB (composite)<br>55dB (Y/C, component) |
| Y/C delay: | Less than 20ns (component)<br>Less than 50ns (composite) |
| Sampling rate: | Y: 908fH (fH: 15.625kHz)<br>R-Y/B-Y: 1/4 × 908fH |
| Quantization: | Y/R-Y/B-Y: 8 bits |

**Control Signals**

| | |
|---|---|
| EDITOR: | D-sub 9-pin, 9-pin remote (RS-422A) |
| T1/CUE IN/T2 IN: | BNC type (× 1, each), TTL level |
| CONTROL PANEL: | D-sub 25-pin, 25-pin rermote (RS-422A) |

# BVS-3200P /3200CP

## Composite/Component Video Switcher

•Choice of composite or component version:
BVS-3200P Composite Video Switcher
— Accepts composite video signals
BVS-3200CP Component Video Switcher
— Accepts composite or a combination of RGB, Y/R-Y/B-Y component signals
— 12-pin Component Video Connector Inputs/Outputs for Betacam VTRs are provided
•Ten Primary inputs (including colour black and colour background) •One M/E and two KEY Busses/Processors (assignable) •KEY OVER function •Two common EXT KEY sources and FILL available for both KEYER •One EXT KEY source and FILL available for DSK •Ten basic and eight matrix wipe patterns with modifiers •Fully adjustable internal BOX MASK and EXT MASK inputs •Four COLOUR MATTE GENERATORs for BACKGROUND, EFF/BORDER (KEY 1 and KEY 2), and DSK •CHROMAKEYER (RGB or Y/R-Y/B-Y selectable) •DSK with BORDER, DROP SHADOW, OUTLINE-2H/4H selectable •FADE to BLACK (FTB) function •Auto Transition for M/E, DSK, and FTB •RS-422A interface •Communication of E-File and initial panel information with BVE-2000/9100 •DFS-500P interface •Four Black Burst Outputs •GPI Input port for M/E, DSK, FTB, and SELECT •Four (BVS-3200CP)/two (BVS-3200P) PGM Outputs and one PVW Output

| | |
|---|---|
| Supplied accessories: | AC power cord<br>Control panel cable (5m)<br>Extension board |
| Optional accessories: | SWC-2530D Control panel cable (30m)<br>RMM-3000 Rack mount kit |

### Specifications

| | |
|---|---|
| Power requirements: | AC 100 to 240V ±10%, 50/60Hz ±10% |
| Power consumption: | BVS-3200P: 140W<br>BVS-3200CP: 190W |
| Operating temperature: | 0° to 40°C (32° to 104°F) |
| Storage temperature: | –20° to 60°C (–4° to 140°F) |

| | |
|---|---|
| Dimensions: | |
| Control panel: | Approx. 424(W) × 111(H) × 440(D)mm<br>(16 3/4 × 4 1/8 × 17 3/8 inches) |
| Processor unit: | BVS-3200P:<br>Approx. 424(W) × 132(H) × 397(D)mm<br>(16 3/4 × 5 1/4 × 15 3/4 inches)<br>BVS-3200CP:<br>Approx. 424(W) × 176(H) × 450(D)mm<br>(16 3/4 × 7 × 17 3/4 inches) |
| Mass: | |
| Control panel: | Approx. 4.4 kg (9 lb 11 oz) |
| Processor unit: | BVS-3200P:<br>Approx. 13 kg (28 lb 11 oz)<br>BVS-3200CP:<br>Approx. 18 kg (39 lb 11 oz) |

*For further information, please contact the nearest Sony office.

# BVS-3100P

## Composite Video Switcher

•Ten Primary inputs (including colour black and colour background) •One M/E and one KEY Bus •Two EXT KEY sources and FILL available for KEYER •One EXT KEY source and FILL available for DSK •Ten basic and eight matrix wipe patterns with modifiers •Fully adjustable internal BOX MASK and EXT MASK inputs •Three COLOUR MATTE GENERATOR for BACKGROUND, EFF/BORDER, and DSK •CHROMAKEYER (RGB or Y/R-Y/B-Y selectable) •DSK with BORDER, DROP SHADOW, OUTLINE (2H/4H) selectable FADE to BLACK (FTB) function •Auto Transition for M/E, DSK, and FTB •RS-422A interface •Communication of E-File and initial panel information with BVE-910/9000/9100 •DME-450P interface •Four Black Burst Outputs •GPI Input port for M/E, DSK, FTB, and SELECT •Two PGM Outputs and one PVW Output

| | |
|---|---|
| Supplied accessories: | AC power cord<br>Control panel cable (5m)<br>Extension board<br>Operation and maintenance manual |
| Optional accessories: | SWC-2530D Control panel cable (30m)<br>RMM-3000 Rack mount kit |

### Specifications

| | |
|---|---|
| Power requirements: | AC 100V to 240V ±10%, 50/60Hz ±10% |
| Power consumption: | 125W |
| Operating temperature: | 0° to 40°C (32° to 104°F) |
| Storage temperature: | –20° to 60°C (–4° to 140°F) |
| Dimensions: | |
| Control panel: | Approx. 424(W) × 111(H) × 440(D)mm<br>(16 3/4 × 4 3/8 × 17 3/8 inches) |
| Processor unit: | Approx. 424(W) × 132(H) × 350(D)mm<br>(16 3/4 × 5 1/4 × 15 3/4 inches) |
| Mass: | |
| Control panel: | Approx. 4.4 kg (9 lb 11 oz) |
| Processor unit: | Approx. 13 kg (28 lb 11 oz) |

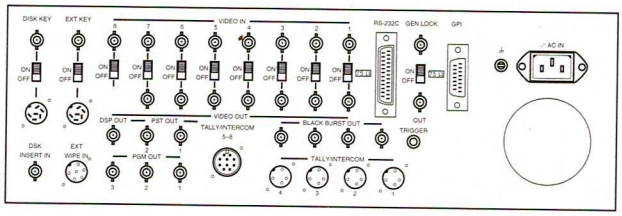
*For further information, please contact the nearest Sony office.

# SEG-2550AP

*E-File*

**Colour special effects generator**

•The SEG-2550AP is a compact and cost effective special effects generator for program production and post production •The E-File function, which memorizes and reproduces the setting of switches and buttons and the movement of the controls, levers and sticks, is adopted •Interface capability with the BVE-900/910 automatic editing control unit and an external computer •A total of 137 versatile wipe patterns •Wipe pattern modifiers such as the positioner, the border wipe, softness border edge, echo/pairing wipe, and mosaic wipe are provided •8 video inputs and 4 bus lines (A, B, PGM and PST) for special effects (MIX, WIPE, and EXTERNAL KEY) •Built-in background colour •Built-in downstream keyer (DSK) •Independent colour generation for DSK •Shadow and edge adjustment for the key signal •Built-in sync generator •4 black burst signal outputs for synchronization of video equipment •SC and H phase indicators for easy phase adjustment •19-inch rack mountable •Torque adjustment of the effects levers



Supplied accessories:
- AC power cord
- Wipe pattern list
- CCJ connector for tally/intercom
- Designation label
- D-sub (15-pin) connector
- Transparent Designation Chips
- White Seal

## Specifications

Power requirements: AC 220 to 240V, 50/60Hz
Power consumption: 92W
Operating temperature: 0 to 40°C (32 to 104°F)
Dimensions: Approx. 481(W) × 155.5(H) × 310.4(D)mm (19 × 6 1/8 × 12 1/4 inches)
Mass: Approx. 14.5kg (31 lb 15 oz)
Video signal system: PAL
Switching system: Vertical blanking switcher
Effects:

MIX
Mixing by PGM/PST MIX lever and the EFF lever

WIPE
137 wipe patterns (selectable)
Wipe edge: The softness is continuously variable
Border: Hue, chroma, luminance and width are continuously variable
Pairing: Scanning lines 2 lines/3 lines/4 lines (selectable)
Echo: Possible

EXT KEY
Output signal (DIN, 6-pin)
HD, VD, 4Vp-p, 75Ω, unbalanced
Input signal (BNC type and DIN, 6-pin)
0.7Vp-p (video), 1Vp-p (VS), 75Ω, unbalanced with 75Ω termination switch
EXT KEY connector (BNC type and DIN, 6-pin) with 75Ω termination switch
Slicer circuit is included (Clip level is variable)

DOWNSTREAM KEYER
Output signal (DIN, 6-pin)
HD, VD, 4Vp-p, 75Ω, unbalanced
Input signal (BNC type and DIN, 6-pin)
0.7Vp-p (video), 1Vp-p (VS), 75Ω, unbalanced
DSK KEY connector: (BNC type and DIN, 6-pin) with 75Ω termination switch
Shadow: Wide and narrow (selectable)
Edge: Variable
Colour matte: Continuously variable
Chroma: Approx. 0 to 700mVp-p (variable according to the hue level)
Hue: 0 to 360°
Luminance (Y): Approx. 50 to 700mV continuously variable

BACKGROUND COLOUR
Chroma: Approx. 0 to 700mVp-p (variable according to the hue level)
Hue: 0 to 360°
Luminance (Y): Approx. 50 to 700mV continuously variable

Input signal:
VIDEO IN 1 to 8 connectors (BNC type) × 8
0.7Vp-p (VB) or 1Vp-p (VBS), 75Ω, unbalanced with 75Ω termination switches
(The INDICATION selector does not function with the VB input signal.)
GENLOCK IN connector (BNC type) × 1
0.3V/0.3V (BS) or 1Vp-p (VBS), with 75Ω termination switch
DSK INSERT IN connector (BNC type) × 1
1Vp-p (VS)
EXT WIPE IN connector (DIN, 6-pin) × 1

Output signal:
VIDEO OUT 1 to 8 connector (BNC type) × 8
1Vp-p (VBS), 75Ω, unbalanced (loop-through output of the corresponding VIDEO IN connector)
PGM OUT 1 to 3 connector (BNC type) × 3
1Vp-p (VBS), 75Ω, unbalanced
PST OUT 1 to 2 connector (BNC type) × 2
1Vp-p (VBS), 75Ω, unbalanced
GENLOCK OUT connector (BNC type) × 1
(loop-through output of GENLOCK IN connector)
DSP OUT connector (BNC type) × 1
1Vp-p (VS), 75Ω, unbalanced
BLACK BURST OUT 1 to 4 connector (BNC type) × 4
0.3V/0.3Vp-p (BS), 75Ω, unbalanced

Tally/Intercom:
TALLY/INTERCOM 1 to 4 connector (DIN, 4-pin) × 4
TALLY/INTERCOM 5 to 8 connector (CCJ, 10-pin) × 1
Maximum pick-up value in a relay: 24V 200mA DC

Trigger:
TRIGGER (Special minijack) × 1
TAKE function by earth
(OPEN: +5V, impedance 65kΩ)

GPI:
GPI (D-sub, 15-pin) × 1
TAKE function, PGM DSK Cut-in/out by earth
OPEN; ±5V, impedance 65kΩ)

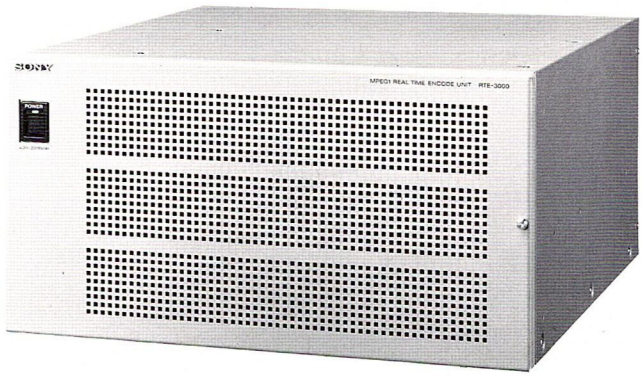
RS-232C:
9600 baud (fixed), DTE (terminal),
Signal level ±9V

DG: Less than 1%
DP: Less than 1°
Crosstalk: Over –50dB
Frequency response: 8MHz ±0.5dB
S/N ratio: Over –60dB

RTE-3000E.....114

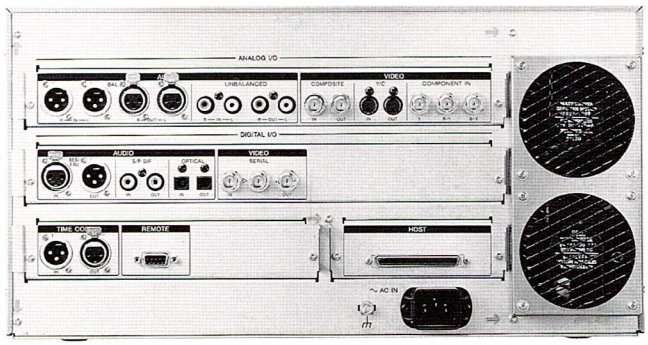
# RTE-3000E

## MPEG-1 Real Time Encode Unit




•Original Sony encode and motion estimation controller LSI incorporated for high quality picture encoding •Sony adaptive bit rate control encoding technology incorporated to assure appropriate encoding for each scene •Automatic scene change detection incorporated to smoothly and accurately encode scene transitions •Capable of encoding high resolution still images •Capable of directly encoding signals from personal computers •Built-in Sony decoding circuitry to enable decoded signals to be monitored while encoding •RS-422 port available for VTR control •Simultaneous video/audio multiplexing

| | |
|---|---|
| Supplied accessories | ISA interface card and cable |
| Required software | Windows compatible RTS-3000 Encoder control software |
| Optional accessories | RTP-3000 Digital input/output board<br>RTP-3100 Image processor board |
| Optional software | RTS-3100E Extended control software<br>RTS-3200E Video CD authoring software |






## Specification

### General

| | |
|---|---|
| Power requirement | 220 to 240 VAC, 45 to 65Hz |
| Power consumption | 300W (encoder) |
| Operating temperature | 5 to 35° C (41 to 95° F) |
| Dimensions | 424 (W) × 231.6 (H) × 478 (D)mm<br>($16^{3}/_{4} \times 9^{1}/_{8} \times 18^{7}/_{8}$ inches) |
| Mass | 20kg (44 lbs. 15 oz) |

### Video

| | |
|---|---|
| Video format | MPEG-1 Video (ISO11172-2) |
| Video bit rate | Adjustable from 1 to 7Mbits/sec. |
| Picture size at SIF resolution | 352 × 240 × 30 (NTSC)<br>352 × 288 × 25 (PAL)<br>352 × 240 × 24 (Film) |
| Video inputs/outputs | S-video<br>Composite<br>Component (Y/R-Y/B-Y) input only<br>Component SDI (option) |

### Audio

| | |
|---|---|
| Audio format | MPEG-1 Audio ISO11172-3 layer 1 and layer 2 (mono, stereo, joint stereo, dual) |
| Audio bit rate | 32 to 384Kbits/sec. |
| Stereo inputs/outputs | Balanced XLR<br>Unbalanced phono<br>AES/EBU digital (optional)<br>S/P DIF (option)<br>Optical (option) |

Host computer minimum requirements

100MHz Intel 80486 DX4 microprocessor or faster; 3MB free hard disk space for application; fast SCSI-2 AV Hard Drive (strongly recommended); Super VGA graphics with 1024 x 768 resolution and 256 colours for control software display; Microsoft Windows 3.1 or 3.11 operating system*

*These specifications should be used as a guideline for integrating a system which can be used to encode low bit rate MPEG-1 streams (1 to 3Mbits/sec.). The performance of your system may vary depending upon your selection of graphics cards, hard drive, and hard drive interface card selection.

# SECTION 5 VIDEO FILE SERVER SYSTEM

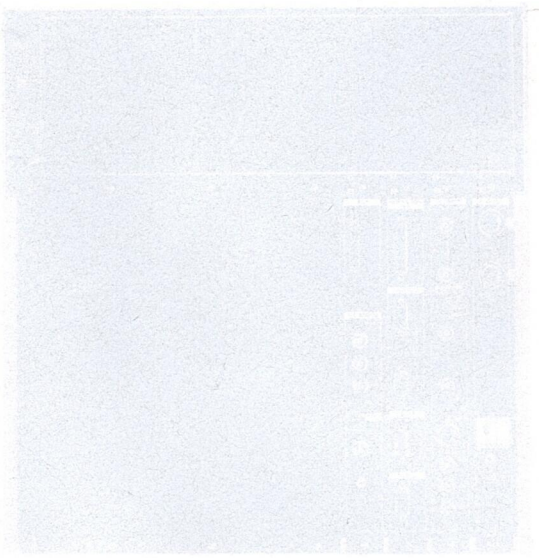

**1. Multichannel video file server system**

1-1. BitStream™
VST-1000P.....116

1-2. VideoStore™
VSR-1000.....117
VSH-1000.....118

**2. Multichannel video file server system accessories**

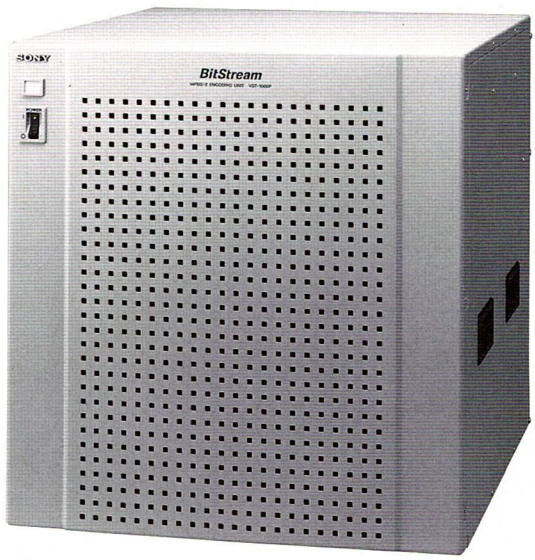


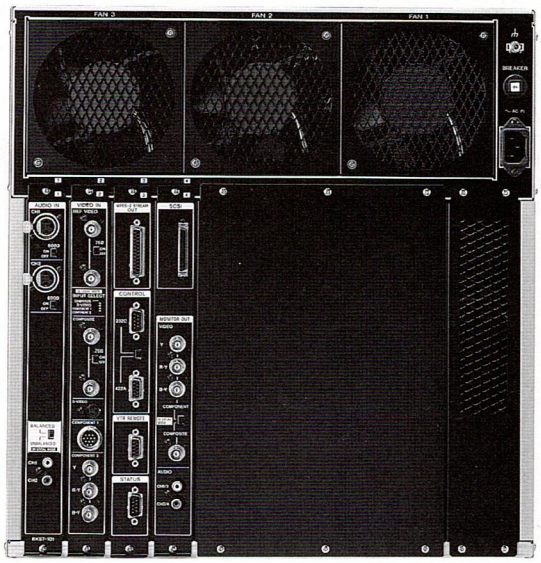



# VST-1000P

## MPEG-2 Encoding unit

•5Mbps or 10Mbps MPEG-2 Main Profile @ Main Level 4:2:0 Real Time Encoding •Processes full-bandwidth analog video input in either component, composite, or S-Video formats •SDI input option with BKST-103 SDI Input Board •Two channel (BKST-101) or four channel (BKST-102) audio input board is available with balanced/ unbalanced connectors •Built-in decoder board with component or composite video outputs and four channel audio monitoring for encoder monitoring •Optional Motion Estimation Expansion Board (BKST-105) provides 200% expansion of the motions detection area for further improvement of image quality •Embeds clip ID number into MPEG-2 bit stream for playout verification •Application control through either RS-422A or RS-232C •Built-in RS-422A VTR machine control •Predictive Maintenance fault tolerance



Supplied accessories: Terminator for SCSI interface (×1)
MPEG-2 Stream Cable (×1, length: 5m)
Rack Mount Bracket for 5U (× 4)

Optional accessories:

| | |
|---|---|
| BKST-101 | Two Channel Audio Input Board |
| BKST-102 | Four Channel Audio Input Board |
| BKST-103 | SDI Input Board |
| BKST-105 | ME Expansion Board |
| RMM-18DV | Rack Mount Rail |
| SDX-VS300 | AIT Drive Unit |



## Specifications

### General

Power Requirements: AC 100 to 240V, 50/60 Hz
Power Consumption: Approx. 350W
Operating Temperature: 10 to 35°C (50 to 95°F)
Storage Temperature: –20 to 55°C (–4 to 131°F)
Operating Humidity: 30 to 70%
Storage Humidity: 20 to 75%
Dimensions: 424 (W) ×443 (H) ×480 (D) mm
(16 3/4 ×17 1/2 ×19 inches)
Mass: Approx. 26.6 kg (58 lb 10 oz)
Approx. 28.6 kg (63 lb 2 oz) - Fully optioned

### Video Inputs

COMPOSITE IN: BNC (×2, One for loop-through),
1.0Vp-p, 75Ω (ON/OFF switchable), sync negative
COMPONENT 1 IN: Circular 12-pin (×1)
Y: 1.0Vp-p, 75Ω, sync negative
R-Y: 0.7Vp-p, 75Ω
B-Y: 0.7Vp-p, 75Ω
COMPONENT 2 IN: BNC (×3)
Y: 1.0Vp-p, 75Ω, sync negative
R-Y: 0.7Vp-p, 75Ω
B-Y: 0.7Vp-p, 75Ω
S-video (Y/C) IN: DIN 4-pin S-terminal
Y: 1.0Vp-p, 75Ω, sync negative
C: 0.3Vp-p, 75Ω at burst
REFERENCE VIDEO IN: BNC (×2, One for loop-through),
1.0Vp-p, 75Ω (ON/OFF switchable), sync negative

### Audio Inputs (with optional BKST-101 or BKST-102)

< BKST-101 Two Channel Audio Input Board >
BALANCED: XLR-3 type (×2, for 2 channels), +4dBu, 600Ω or 10kΩ (selectable)
UNBALANCED: Phono (×2, for 2 channels), –10dBu, 47kΩ

< BKST-102 Four Channel Audio Input Board >
BALANCED: XLR-3 type (×4, for 4 channels) +4dBu, 600Ω or 10kΩ (selectable)
UNBALANCED: Phono (×4, for 4 channels), –10dBu, 47kΩ

### Video Monitor Outputs

COMPOSITE OUT: BNC (×1), 1.0Vp-p, 75Ω, sync negative
COMPONENT OUT: BNC (×3)
Y: 1. 0Vp-p, 75Ω, sync negative
R-Y: 0.7Vp-p, 75Ω
B-Y: 0.7Vp-p, 75Ω

### Audio Monitor Outputs

UNBALANCED OUT: Phono (×2, for 2 channels), –5dBu, 47kΩ
HEADPHONE OUT: Stereo Phone (×1) –14dBu (with volume control), 8Ω

### Interface

MPEG-2 STREAM OUT: D-sub 25-pin, RS-422A
CONTROL 232C: D-sub 9-pin, RS-232C
CONTROL 422A: D-sub 9-pin, RS-422A
VTR REMOTE: D-sub 9-pin, RS-422A
STATUS: D-sub 9-pin, RS-232C
SCSI: SCSI-2 (Half-pitch)

### Signal Processing

VIDEO Encoding
Video Coding: MPEG-2 MP@ML SYNTAX
Source Format: CCIR REC601, 720 pixels ×576 lines
MPEG-2 Coding Algorithm
Frame Structure Fix: Frame/Field MC. DCT adaptive
Motion Vector Range: Horizontal:
Max. 48 pixels
Max. 96 pixels
- with the optional BKST-105
Vertical:
Max. 32 lines
Max. 48 lines
- with the optional BKST-105
AUDIO Encoding
Audio Coding: MPEG AUDIO LAYER 1/2
Sampling Frequency: 48 kHz
Bit Rate: Stereo 256 kbps
Mode: Stereo
Audio/Video Bit Rate: 5.0Mbps/10Mbps, selectable

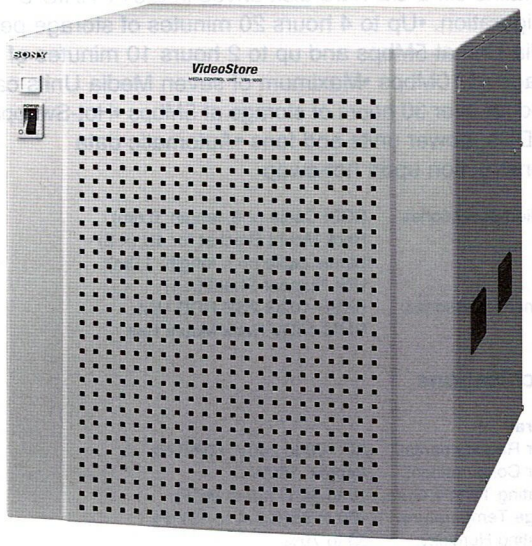
**Safety Regulations** EN 60950, UL-1950, CSA C22.2 No.950
**EMC Regulations** EN 55022 Class B, FCC Class A

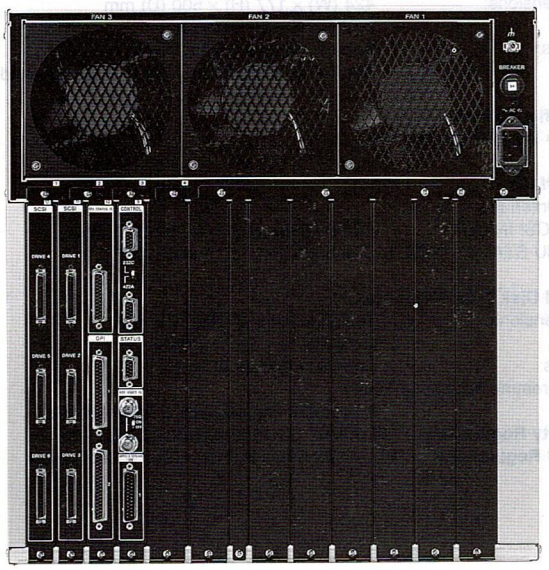
# VSR-1000

## Media Control Unit

•Supports storage and multichannel playback of either 5Mbps or 10Mbps MPEG-2 Main Profile @ Main Level •Maximum of 12 (data rate of 5 Mbps) or 6 (data rate of 10 Mbps) channel simultaneous playback capability •Quick random access •Back to back playback without black •Maximum of seven VSH-1000 Media Units can be connected to one VSR-1000 •Fault Tolerant Architecture (Sony Predictive Maintenance™, Hot-Swapability, Non-Disruptive Faulting, etc.) •Versatile Clip Distribution with Clip Exchange Board (BKSR-103) and Ethernet Interface Board (BKSR-105) •Dedicated RS-232C port for diagnosis •Operation can also be triggered via a general purpose interface (GPI)

| | | |
|---|---|---|
| Supplied accessories: | 75Ω terminator for SCSI interface (× 6) | |
| | Rack Mount Bracket for 5U (× 4) | |
| Optional accessories: | BKSR-101P | One Channel Decoder Board |
| | BKSR-102 | Two Channel Decoder Board |
| | BKSR-103 | Clip Exchange Board |
| | BKSR-104 | Power Unit |
| | BKSR-105 | Ethernet Internet Board |
| | RMM-18DV | Rack Mount Rail |
| | SDX-VS300 | AIT Drive Unit |




## Specifications

### General

| | |
|---|---|
| Power Requirements: | AC100 to 240V, 50/60Hz |
| Power Consumption: | Approx. 350W |
| Operating Temperature: | 10 to 35°C (50 to 95°F) |
| Storage Temperature: | –20 to 55°C (–4 to 131°F) |
| Operating Humidity: | 30 to 70% |
| Storage Humidity: | 20 to 75% |
| Dimensions: | 424 (W) × 443 (H) × 480 (D) mm |
| | (16 3/4 × 17 1/2 × 19 inches) |
| Mass: | Approx. 22.8kg (49 lb 9 oz) |
| | Approx. 35.0kg (77 lb 3 oz) - Fully optioned |

### Inputs

| | |
|---|---|
| REFERENCE VIDEO IN: | BNC (× 2, One for loop-through), 1.0Vp-p, 75Ω |
| MPEG-2 STREAM IN: | D-sub 25-pin, RS-422A |

**Decoder** (with optional BKSR-101 or BKSR-102)

< BKSR-101P One Channel Decoder Board >

| | |
|---|---|
| Bit Rate: | 5.0Mbps/10.0Mbps |
| Number of Channel: | 1 channel |
| | (Up to 6 boards can be installed in the VSR-1000) |
| Video Outputs | |
| COMPOSITE 1/2/3: | Composite (PAL), BNC (× 3 per 1 channel), 1.0Vp-p, 75Ω |
| COMPONENT: | BNC (× 3) |
| | Y: 1.0Vp-p |
| | R-Y: 0.7Vp-p |
| | B-Y: 0.7Vp-p |
| Audio Outputs | |
| AUDIO 1/2/3/4: | XLR type (× 1 per 1 channel), stereo, +4dBu, 600kΩ, balanced |

< BKSR-102 Two Channel Decoder Board >

| | |
|---|---|
| Bit Rate: | 5.0Mbps |
| Number of Channel: | 2 channels |
| | (Up to 6 boards can be installed in the VSR-1000) |
| Video Outputs | |
| COMPOSITE 1/2: | Composite (PAL), BNC (× 2 per 1 channel), 1.0Vp-p, 75Ω |
| SYNC IN: | BNC (× 1 per 1 channel), 1.0Vp-p, 75Ω |
| COMPONENT: | BNC (× 3) |
| | Y: 1.0Vp-p |
| | R-Y: 0.7Vp-p |
| | B-Y: 0.7Vp-p |
| Audio Outputs | |
| AUDIO 1/2: | XLR type (× 1 per 1 channel), stereo, +4dBu, 600kΩ, balanced |

### Interface

| | |
|---|---|
| MU Interface | |
| SCSI: | SCSI (Half-pitch, date transfer only) |
| MU STATUS: | D-sub 25-pin, Parallel I/O |
| Host Interface | |
| CONTROL 232C: | D-sub 9-pin, RS-232C |
| CONTROL 422A: | D-sub 9-pin, RS-422A |
| GPI 1/2: | D-sub 37-pin (×2) |
| STATUS | D-sub 9-pin, RS-232C |

Clip Exchange (with the optional BKSR-103)

| | |
|---|---|
| MPEG-2 STREAM IN 2: | D-sub 25-pin, Parallel, RS-422A |
| MPEG-2 STREAM IN 3: | D-sub 25-pin, Parallel, RS-422A |
| MPEG-2 STREAM OUT: | D-sub 25-pin, Parallel, RS-422A |
| STREAMER: | SCSI-2 (Half-pitch) |

### Audio/Video Performance

| | |
|---|---|
| Video | |
| Video Data: | MPEG-2 Encoded Data (ML@MP), 4.0Mbps/9.0Mbps |
| Resolution: | 720 × 576 × 25Hz |
| Signal-to-Noise Ratio: | More than 46dB |
| Audio | |
| Audio Data: | MPEG-1 Layer 2, 256kbps |
| Sampling Frequency: | 48kHz |
| Quantization: | 16 bits, linear |
| Signal-to Noise Ratio: | More than 80dB |
| Audio Video Bit Rate: | 5.0Mbps/10.0Mbps |

### Search Performance

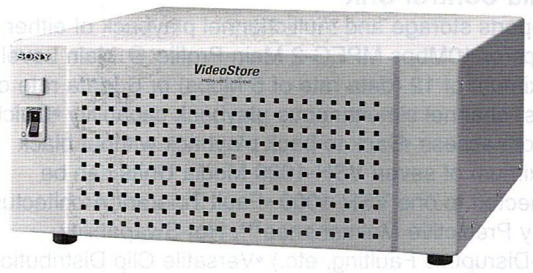
| | |
|---|---|
| Clip Access Time: | Less than 4.0s |

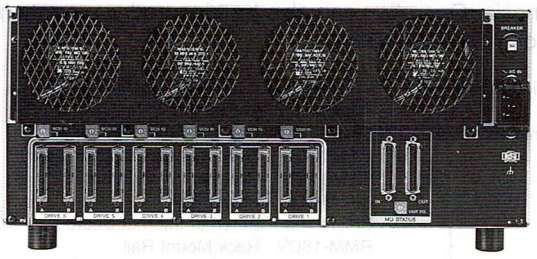
| | |
|---|---|
| **Safety Regulations** | EN 60950, UL-1950, CSA C22.2 No.950 |
| **EMC Regulations** | EN 55022 Class B, FCC Class A, IC Class A |

# VSH-1000

## Media Unit

•Contains six 2 GB hard disk drives in a 5+1 RAID-3 configuration. •Up to 4 hours 20 minutes of storage per Media Unit at 5Mbps and up to 2 hours 10 minutes of storage at 10Mbps •Maximum of seven Media Units can be linked for over 30 hours of storage at 5Mbps •Hot-Swappability of HDDs, power units and fans •Automatic data reconstruction upon hot-swap



| | |
|---|---|
| Supplied accessories: | SCSI Cable (× 6, length: 0.6m)<br>Rack Mount Bracket for 4U (× 2)<br>Status cable (× 1, length: 1.0m)<br>Unit Number Sheet (× 1) |
| Optional accessories: | BKSH-102G 2GB HDD Unit<br>RMM-18DV Rack Mount Rail |

## Specifications

**General**

| | |
|---|---|
| Power Requirements: | AC 100 to 240V, 50/60 Hz |
| Power Consumption: | Approx. 160W |
| Operating Temperature: | 10 to 35°C (50 to 95°F) |
| Storage Temperature: | –20 to 55°C (–4 to 131°F) |
| Operating Humidity: | 30 to 70% |
| Storage Humidity: | 20 to 75% |
| Dimensions: | 424 (W) × 177 (H) × 500 (D) mm<br>(16 3/4 × 7 × 19 3/4 inches) |
| Mass: | Approx. 16.2 kg (35 lb 11 oz)<br>Approx. 27.6 kg (60 lb 13 oz) - Fully optioned |

**Configurations**

| | |
|---|---|
| HDD Install Capacity: | 6 |

**Interface**

| | |
|---|---|
| MU Interface | |
| SCSI IN/OUT: | SCSI-2 (Half-pitch × 6), 8 bits, 5 MHz |
| MU STATUS IN/OUT: | D-sub 25-pin (× 1), Parallel I/O |

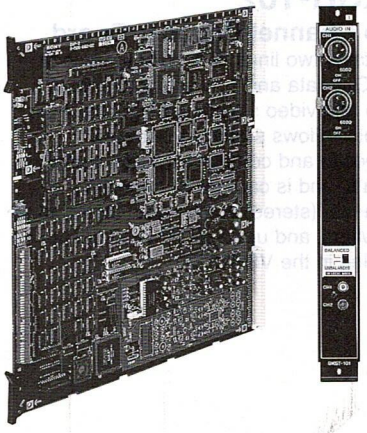
**Hard Disk** (with BKSH-102G)

| | |
|---|---|
| Dimensions: | 38 (W) × 161 (H) × 423 (D) mm<br>(1 1/2 × 6 3/8 × 16 3/4 inches) |
| Mass: | Approx. 1.9 kg (4 lb 3 oz) |
| Programme Recording Time: | 4 hours 20 minutes-with 6 BKSH-102Gs |
| **Safety Regulations** | EN 60950, UL-1950, CSA C22.2 No.950 |
| **EMC Regulations** | EN 55022 Class B, FCC Class A, IC Class A |

## BKST-101

### Two Channel Audio Input Board

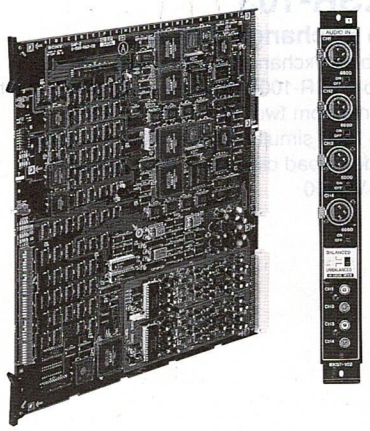
•Enables 2-channel audio input to VST-1000P
•Balanced and unbalanced AUDIO IN connectors are provided



## BKST-102

### Four Channel Audio Input Board

•Enables 4-channel audio input to VST-1000P •Balanced and unbalanced AUDIO IN connectors are provided

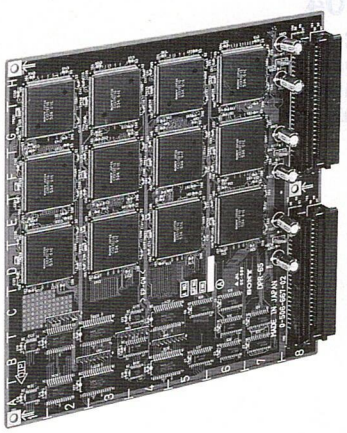




## BKST-105

### ME Expansion Board

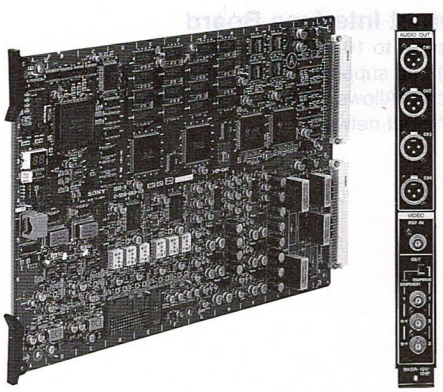
•Provides 200% expansion of the motion detection area of VST-1000P •Improves motions interpolation performance, providing outstanding picture quality, particularly when encoding video sequences with fast horizontal movements



## BKSR-101P

### One Channel Decoder Board

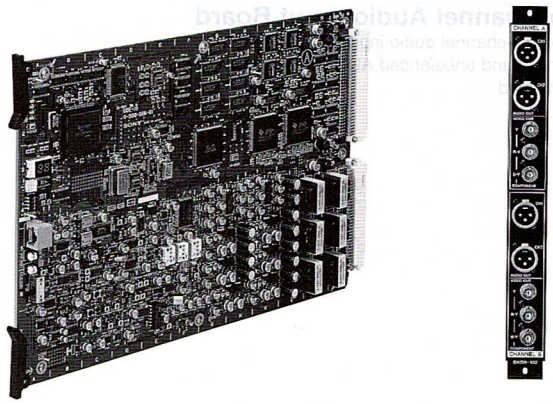
•Decodes MPEG-2 data and converts it to analog audio and video signals for output
•Allows switching between composite and component video signal formats, and is capable of handling 4-channel audio
•BKSR-101P can operate at a data rate of 10 Mbps or 5 Mbps, and in gen-locked mode •Up to six BKSR-101P can be installed in the VSR-1000



## BKSR-102

### Two Channel Decoder Board

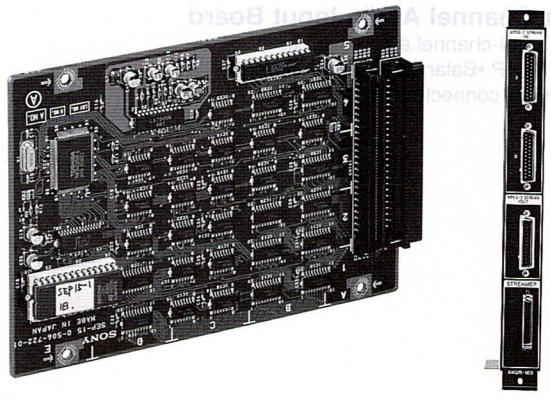
•Contains two lines of circuits to decode MPEG-2 data and converts it to analog audio and video signals for two channels outputs •Allows switching between composite and component video signal formats, and is capable of handling 2-channel (stereo) audio •Data rate is fixed at 5 Mbps, and up to six BKSR-102 can be installed in the VSR-1000



## BKSR-103

### Clip Exchange Board

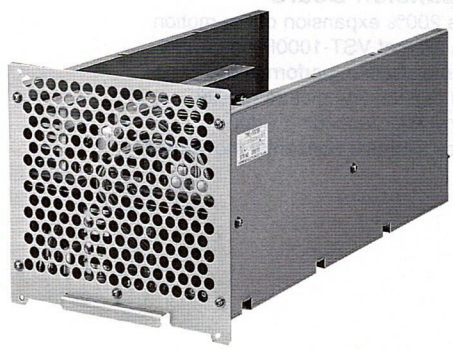
•Enables exchanging video clips among multiple VSR-1000 •Enables input MPEG-2 bit streams from two VST-1000P units to the VSR-1000 simultaneously •Able to upload and download clips via a data streamer SDX-VS300



## BKSR-104

### Power Unit

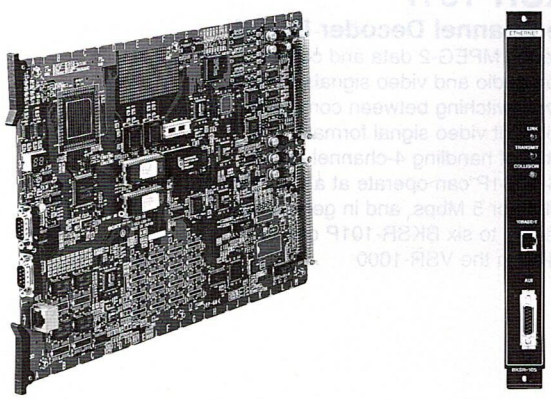
•Doubles the power supply of the VSR-1000 to assure uninterrupted operation should one of the supplies break down



## BKSR-105

### Ethernet Interface Board

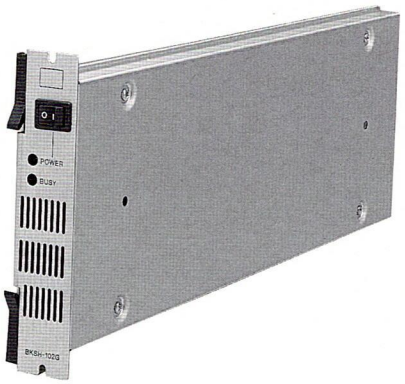
•Conforms to 10 BASE-T or AUI (IEEE 802.3) and supports the FTP (File Transfer Protocol) •Allows clips to be transferred via an Ethernet network



## BKSH-102G

### 2GB HDD Unit

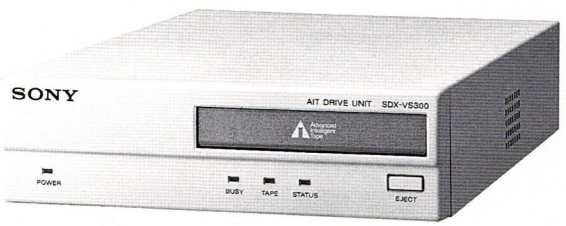
•BKSH-102G is a hard disk drive unit with a storage capacity of 2 GB, designed to be used in the VSH-1000 Media Unit •Six BKSH-102Gs are to be installed in a single VSH-1000

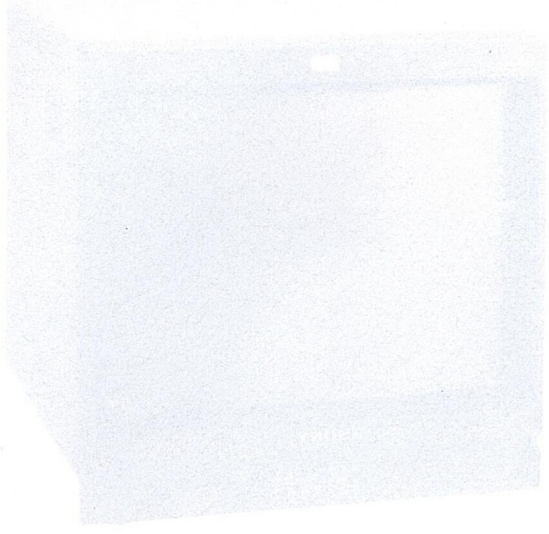



## SDX-VS300

### AIT Drive Unit

•25 GB per cassette •8mm cassette size







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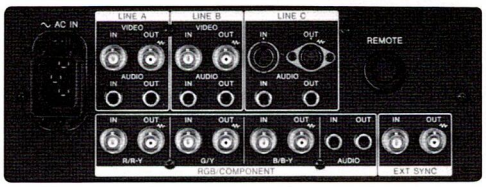
## 20" PVM-2054QM (PAL/NTSC/SECAM/NTSC4.43)

### Super Fine Pitch, EBU phosphors

•High resolution of 600TV lines at centre •Adoption of EBU phosphors for monitor matching •Switchable aspect ratio(4:3 and 16:9) •Beam current feedback circuit for stable colour reproduction •Component(Y/R-Y/B-Y or RGB)input facility •Auto chroma/phase setup*1 •Optional component serial digital interface kits available for video and audio •On-screen display in multiple language for adjustment/ operation •6500K/9300K/User preset colour temperature selectable •User preset function •H/V delay and Normal scan/Underscan selection •Blue only mode •Accepts external sync/sync on Green •Mountable into a 19-inch EIA standard rack with optional SLR-103A

Optional accessories:
- Component serial digital interface kit(VIDEO) BKM-101C
- Component serial digital interface kit(audio) BKM-102
- Serial remote control kit for RS-422 BKM-103
- TV tuner unit TU-1040E
- Slide rail kits SLR-103A
- Composite digital monitor interface DMIF-2000

### Specifications



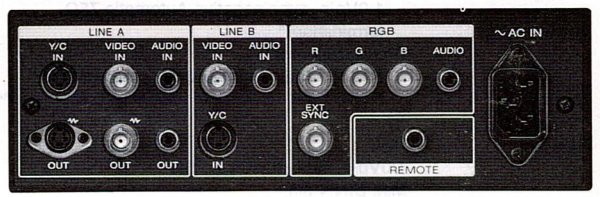

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*2 (automatically selected) |
| Picture tube: | 52cm(20-inch) HR Trinitron tube, visible picture size 48cm(19-inch)measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 600TV lines at centre (Video inputs) |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V 1.7 to 1.0A, 50/60Hz |
| Power consumption: | 120W (130W with BKM-101C/102) |
| Dimensions: | 450(W) × 457.5(H) × 503(D)mm ($17^3/_4 \times 18^1/_8 \times 19^7/_8$ inches) |
| Mass: | 30.0kg(66 lb 2 oz) |
| **VIDEO** | |
| LINE A/B | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*4 |
| LINE C | Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative,Automatic 75Ω termination*4<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*4<br>NTSC:0.286Vp-p, Automatic 75Ω termination*4 |
| RGB/Component*3 | Loop-throught BNC<br>R-Y/B-Y:<br>0.7Vp-p, Automatic 75Ω termination*4<br>Y/Sync on Green:<br>1Vp-p, sync negative,<br>Automatic 75Ω termination*4<br>RGB:<br>0.7Vp-p, Automatic 75Ω termination*4 |
| External sync | Loop-through BNC<br>4Vp-p negative, Automatic 75Ω termination*4 |
| **AUDIO** | |
| LINE A/B | Loop-through Phono<br>-5dBu, high impedance |
| LINE C | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | Loop-through Phono<br>-5dBu, high impedance |

*1 Phase setup is for NTSC signals only.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 Video amplitude 100/0/100 colour bars.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 20" PVM-20N2E/20N2A*1 (PAL/NTSC/SECAM/NTSC4.43)

•Resolution of 500TV lines •Beam current feedback circuit for stability in the colour balance •Accepts composite video, Y/C and RGB signals •Switchable aspect ratio (4:3 and 16:9) •On-screen menu for adjustment/operation •Input channel can be selected via REMOTE terminal (Phono) •Built-in speaker •Mountable into a 19-inch EIA standard rack with the optional SLR-103A

Optional accessories: Slide rail kit SLR-103A




### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*2 |
| Picture tube: | 53cm(20-inch), HR Trinitron tube, visible picture size 48.0cm (min.) (19-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 105W |
| Dimensions: | 449 (W) × 441 (H) × 502 (D)mm (17 11/16 × 17 3/8 × 19 3/4 inches) |
| Mass: | 28 kg (61lb 11oz) |
| **VIDEO** | |
| LINE A*3 | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*4<br>Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*4<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*4<br>NTSC:0.286Vp-p, Automatic 75Ω termination*4 |
| LINE B*3 | BNC<br>1.0Vp-p, sync negative, 75Ω<br>Mini DIN 4-pin<br>Y: 1.0Vp-p, sync negative, 75Ω<br>C: PAL:0.3Vp-p, sync negative, 75Ω<br>NTSC:0.286Vp-p, 75Ω |
| RGB/Sync | BNC<br>R/G/B: 0.7Vp-p, 75Ω<br>Sync on G: 0.3Vp-p, 75Ω<br>Sync: 4Vp-p, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Phono<br>-5dBu, high impedance |
| RGB/Sync | Phono<br>-5dBu, high impedance |

*1 PVM-20N2A is an Australian version.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

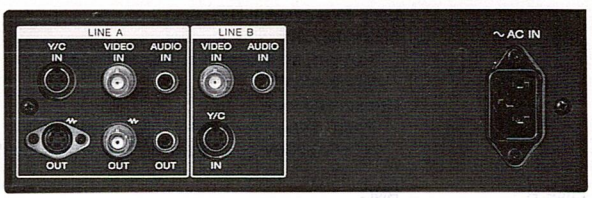
## 20" PVM-20N1E/20N1A*1 (PAL/NTSC/SECAM/NTSC4.43)

•Resolution of 500TV lines •Beam current feedback circuit for stability in the color balance •Accepts composite video and Y/C signals •On-screen menu for adjustment/operation •Built-in speaker •Mountable into a 19-inch EIA standard rack with the optional SLR-103A

Optional accessories: Slide rail kit SLR-103A

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*2 |
| Picture tube: | 53cm(20-inch), HR Trinitron tube, visible picture size 48.0cm(min.) (19-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 105W |
| Dimensions: | 449 (W) × 441 (H) × 502 (D)mm ($17^{11}/_{16} \times 17^{3}/_{8} \times 19^{3}/_{4}$ inches) |
| Mass: | 28 kg (61lb 11oz) |
| **VIDEO** | |
| LINE A*3 | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*4<br>Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative,Automatic 75Ω termination*4<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*4<br>NTSC:0.286Vp-p, Automatic 75Ω termination*4 |
| LINE B*3 | BNC<br>1.0Vp-p, sync negative, 75Ω<br>Mini DIN 4-pin<br>Y: 1.0Vp-p, sync negative, 75Ω<br>C: PAL:0.3Vp-p, sync negative, 75Ω<br>NTSC:0.286Vp-p, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Phono<br>-5dBu, high impedance |




*1 PVM-20N1A is an Australian version.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

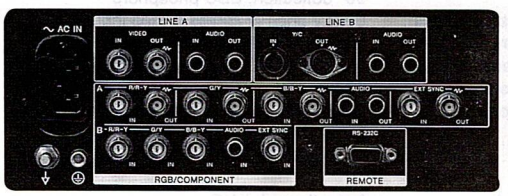
## 20" PVM-20M7MDE (PAL)

**HR Tninitron CRT, EBU phosphors for medical use, 100Hz double scan**

•High resolution of 550TV lines*1 at 15kHz/800TV lines at progressive scan •Adopts EBU phosphors •Digital PAL comb filter for accurate image reproduction •Field doubling scanning to reduce flicker phenomena •Component (Y/R-Y/B-Y or RGB) input facility •On-screen display in multiple language for adjustment/operation •6500K/5600K/User preset colour temperature selectable •Accepts external sync •RS-232C serial remote control capability •Remote /tally input •Power saving function is available •Mountable into a 19-inch EIA standard rack with optional SLR-103A •White colour cabinet with splash-proof covers and control panel cover •Complies with IEC-601-1 safety regulation

Supplied accessories: Splash-proof covers
Control panel cover
RS-232C interface manual
Quick reference card
AC power cord
Panel hinges
Instructions for use

Optional accessories: Slide rail kit SLR-103A




### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields, interlaced<br>CCIR 625 lines, 50 fields, non-interlaced |
| Colour system: | PAL |
| Picture tube: | 53.3cm(20-inch), HR Trinitron tube, visible picture size 48.3cm(min.) (19-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | PAL (15kHz): 550TV lines*1<br>Progressive scan: 800TV lines |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Approx. 160W |
| Dimensions: | 450(W) × 457.5(H) × 503(D)mm<br>($17^{3}/_{4} \times 18^{1}/_{8} \times 19^{7}/_{8}$ inches) |
| Mass: | 34kg(74 lb 15 oz) |

**VIDEO**

| | |
|---|---|
| LINE A | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*2 |
| LINE B | Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*2<br>C(chrominance):<br>0.3Vp-p, Automatic 75Ω termination*2 |
| RGB/Component: | A: Loop-through BNC<br>R-Y/B-Y: 0.7Vp-p, Automatic 75Ω termination*2<br>Y: 1Vp-p, Automatic 75Ω termination*2<br>R/G/B: 0.7Vp-p, Automatic 75Ω termination*2<br>Sync on G: 0.3Vp-p, negative, Automatic 75Ω termination*2<br>Sync: 4Vp-p negative, Automatic 75Ω termination*2<br>B:BNC<br>R-Y/B-Y: 0.7Vp-p, 75Ω<br>Y: 1Vp-p, 75Ω<br>R/G/B: 0.7Vp-p, 75Ω<br>Sync on G: 0.3Vp-p, negative, 75Ω<br>Sync: 4Vp-p negative, 75Ω |

**AUDIO**

| | |
|---|---|
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | A: Loop-through Phono<br>-5dBu, high impedance<br>B: Phono<br>-5dBu, high impedance |

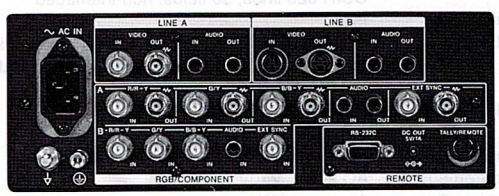
*1 Maximum resolution of the field doubling digital device circuit.
*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 20" PVM-2053MD (PAL/NTSC)

**HR Trinitron CRT, EBU phosphors for medical use**

•High resolution of 600TV lines at centre •Adopts EBU phosphors •Beam current feedback circuit for stable colour reproduction •Component(Y/R-Y/B-Y or RGB) input facility •On screen display in multiple language for adjustment/ operation •6500K/5600K/User preset colour temperature selectable •Capable of observing two RGB input signals simultaneously with the RGB split mode •20% overscan/ normal scan/underscan selection •Blue only mode •Accepts external sync •RS-232C serieal remote control capability •5V DC out •Tally lamp •Mountable into a 19-inch EIA standard rack with optional SLR-103A •White colour cabinet •Complies with IEC-601-1 safety regulation

Supplied accessories: Splashproof adaptor
Front panel cover
Quick reference card
Optional accessories: Slide rail kit SLR-103A




### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC (automatically selected) |
| Picture tube: | 52cm(20-inch), HR Trinitron tube, visible picture size 48cm(19-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 600TV lines at centre (Video inputs) |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V 1.2 to 0.6A, 50/60Hz |
| Power consumption: | 120W |
| Dimensions: | 450(W) × 457.5(H) × 503(D)mm ($17^{3}/_{4} \times 18^{1}/_{8} \times 19^{7}/_{8}$ inches) |
| Mass: | 30.0kg(66 lb 2 oz) |
| **VIDEO** | |
| LINE A | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*1 |
| LINE B | Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative,Automatic 75Ω termination*1<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*1<br>NTSC:0.286Vp-p, Automatic 75Ω termination*1 |
| RGB/Component: | A: Loop-through BNC<br>R-Y/B-Y:<br>0.7Vp-p, Automatic 75Ω termination*1<br>Y/Sync on G:1Vp-p, sync negative, Automatic 75Ω termination*1<br>R/G/B:<br>0.7Vp-p, Automatic 75Ω termination*1<br>Sync:<br>4Vp-p negative, Automatic 75Ω termination*1<br>B:BNC<br>R-Y/B-Y:<br>0.7Vp-p, 75Ω<br>Y/Sync on G:<br>1Vp-p, sync negative, 75Ω<br>R/G/B:<br>0.7Vp-p, 75Ω<br>Sync:<br>4Vp-p negative, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | A:Loop-through Phono<br>-5dBu, high impedance<br>B:Phono<br>-5dBu, high impedance |

*1 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 14" PVM-1454QM(PAL/NTSC/SECAM/NTSC4.43)

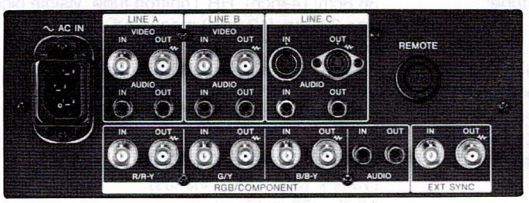
### Super Fine Pitch, EBU phosphors

•High resolution of 600TV lines at centre •Adoption of EBU phosphors for monitor matching •Switchable aspect ratio (4:3 and 16:9) •Beam current feedback circuit for stable colour reproduction •Component(Y/R-Y/B-Y or RGB)input facility •Auto chroma/phase setup*1 •Optional component serial digital interface kits available for video and audio •On-screen display in multiple language for adjustment/operation •6500K/9300K/User preset colour temperature selectable •H/V delay and Normal scan/Underscan selection •Blue only mode •User preset function •Accepts external sync/sync on Green •Mountable into a 19-inch EIA standard rack with optional MB-502B and SLR-102

Optional accessories:
- Component serial digital interface kit(VIDEO) BKM-101C
- Component serial digital interface kit(audio) BKM-102
- Serial remote control kit for RS-422 BKM-103
- TV tuner unit TU-1040E
- Mounting bracket MB-502B
- Slide rail kits SLR-102
- Composite digital monitor interface DMIF-2000

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*2 (automatically selected) |
| Picture tube: | 36.8cm(14-inch) HR Trinitron tube, visible picture size 33.2cm(13-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 600TV lines at centre (Video inputs) |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V 1.4 to 0.8A, 50/60Hz |
| Power consumption: | 90W (99W with BKM-101C/102) |
| Dimensions: | 346(W) × 340(H) × 412(D)mm ($13^5/_8 \times 13^1/_2 \times 16^1/_4$ inches) |
| Mass: | 16.7kg(36 lb 13 oz) |




**VIDEO**

| | |
|---|---|
| LINE A/B | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*4 |
| LINE C | Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*4<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*4<br>NTSC:0.286Vp-p, Automatic 75Ω termination*4 |
| RGB/Component*3 | Loop-throught BNC<br>R-Y/B-Y:<br>0.7Vp-p, Automatic 75Ω termination*4<br>Y/Sync on Green:<br>1Vp-p, sync negative,<br>Automatic 75Ω termination*4<br>RGB:<br>0.7Vp-p, Automatic 75Ω termination*4 |
| External sync | Loop-through BNC<br>4Vp-p negative, Automatic 75Ω termination*4 |

**AUDIO**

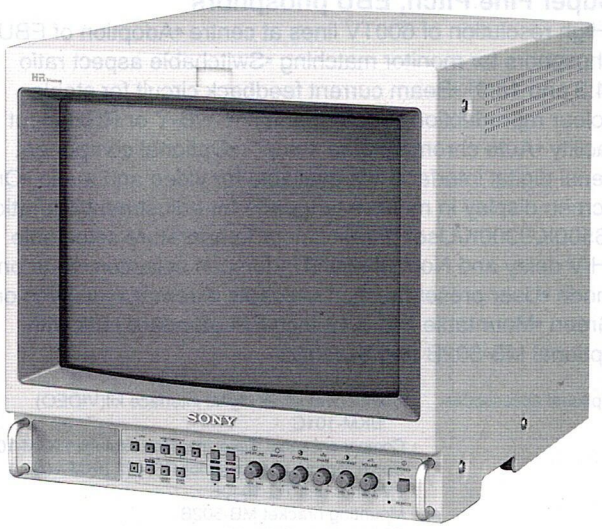
| | |
|---|---|
| LINE A/B | Loop-through Phono<br>-5dBu, high impedance |
| LINE C | Loop-through Phono<br>high impedance |
| RGB/Component | Loop-through Phono<br>-5dBu, high impedance |

*1 Phase setup is for NTSC signals only.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 Video amplitude 100/0/100 colour bars.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

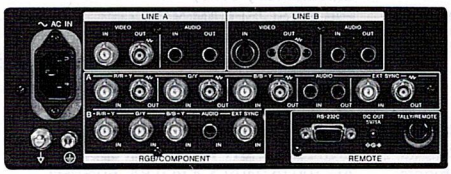
## 14" PVM-1453MD (PAL/NTSC)

**HR Trinitron CRT, EBU phosphors for medical use**

•High resolution of 600TV lines at centre •Adopts EBU phosphors •Beam current feedback circuit for stable colour reproduction •Component(Y/R-Y/B-Y or RGB) input facility •On-screen display in multiple language for adjustment/ operation •6500K/5600K/User preset colour temperature selectable •Capable of observing two RGB input signals simultaneously with the RGB split mode •20% overscan/ normal scan/underscan selection •Blue only mode •Accepts external sync •RS-232C serieal remote control capability •5V DC out •Tally lamp •Mountable into a 19-inch EIA standard rack with optional MB-502B and SLR-102 •White colour cabinet •Complies with IEC-601-1 safety regulation




| | |
|---|---|
| Supplied accessories: | Splashproof adaptor<br>Front panel cover<br>Quick reference card |
| Optional accessories: | Mounting bracket MB-502B<br>Slide rail kits SLR-102 |




### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC (automatically selected) |
| Picture tube: | 36.8cm(14-inch), HR Trinitron tube, visible picture size 33.2cm (13-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 600TV lines at centre (Video inputs) |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V 1.0 to 0.45A, 50/60Hz |
| Power consumption: | 90W |
| Dimensions: | 346(W) × 340(H) × 412(D)mm ($13^5/_8 \times 13^1/_2 \times 16^1/_4$ inches) |
| Mass: | 16.7kg (36 lb 13 oz) |
| **VIDEO** | |
| LINE A | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*1 |
| LINE B | Loop-through Mini DIN 4-pin<br>Y(luminance): 1.0Vp-p, sync negative, Automatic 75Ω termination*1<br>C(chrominance): PAL:0.3Vp-p, Automatic 75Ω termination*1<br>NTSC: 0.286Vp-p, Automatic 75Ω termination*1 |
| RGB/Component: | A: Loop-through BNC<br>R-Y/B-Y:<br>0.7Vp-p, Automatic 75Ω termination*1<br>Y/Sync on G:<br>1Vp-p, sync negative, Automatic 75Ω termination*1<br>R/G/B:<br>0.7Vp-p, Automatic 75Ω termination*1<br>Sync:<br>4Vp-p negative, Automatic 75Ω termination*1<br>B: BNC<br>R-Y/B-Y:<br>0.7Vp-p, 75Ω<br>Y/Sync on G:<br>1Vp-p, sync negative, 75Ω<br>R/G/B:<br>0.7Vp-p, 75Ω<br>Sync:<br>4Vp-p negative, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | A:Loop-through Phono<br>-5dBu, high impedance<br>B:Phono<br>-5dBu, high impedance |

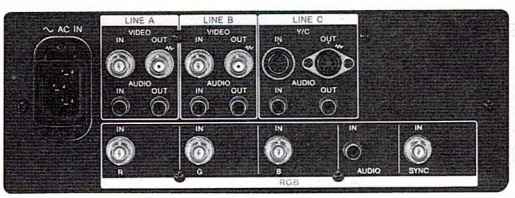
*1 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 14" PVM-1450QM (PAL/NTSC/SECAM/NTSC4.43)

### Colour monitor for general use

•Beam current feedback circuit for stable colour reproduction •Auto chroma/phase setup*1 •On-screen display in multiple language for adjustment/operation •6500K colour temperature •Accepts RGB video signals •Blue only mode •Mountable into a 19-inch EIA standard rack with optional MB-502B and SLR-102

Optional accessories: TV tuner unit TU-1040E
Mounting bracket MB-502B
Slide rail kits SLR-102
Composite digital monitor interface DMIF-2000




### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*2 (automatically selected) |
| Picture tube: | 36.8cm(14-inch) Fine pitch Trinitron tube, visible picture size 33.3cm(13-inch)measured diagonally, 90° deflection |
| Horizontal resolution: | 450TV lines at centre(Video inputs) |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V 1.4 to 0.8A, 50/60Hz |
| Power consumption: | 90W |
| Dimensions: | 346(W) × 340(H) × 411.5(D)mm ($13^5/_8 \times 13^1/_2 \times 16^1/_4$ inches) |
| Mass: | 16.7kg(36 lb 13 oz) |
| **VIDEO** | |
| LINE A/B | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic<br>75Ω termination*3 |
| LINE C | Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative,Automatic 75Ω termination*3<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*3<br>NTSC:0.286Vp-p, Automatic 75Ω termination*3 |
| RGB | BNC<br>RGB: 0.7Vp-p, 75Ω<br>Sync on G: 0.3Vp-p<br>External sync: BNC<br>4Vp-p negative, 75Ω |
| **AUDIO** | |
| LINE A/B | Loop-through Phono<br>-5dBu, high impedance |
| LINE C | Loop-through Phono<br>-5dBu, high impedance<br>RGB Phono<br>-5dBu, high impedance |

*1 Phase setup is for NTSC signals only.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

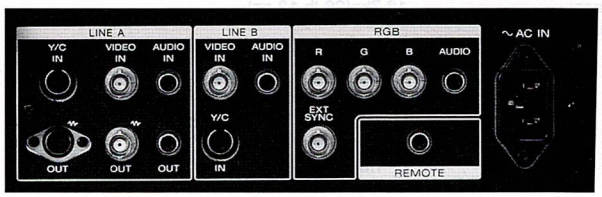
## 14" PVM-14N2E/14N2A*1 (PAL/NTSC/SECAM/NTSC4.43)

•Resolution of 500TV lines •Beam current feedback circuit for stability in the color balance •Accepts composite video, Y/C and RGB signals •Switchable aspect ratio (4:3 and 16:9) •On-screen menu for adjustment/operation •Input channel can be selected via REMOTE terminal (Phono) •Built-in speaker •Mountable into a 19-inch EIA standard rack with the optional MB-502 and SLR-102

Optional accessories: Rack mounting bracket kit MB-502B
Slide rail kit (used with the MB-502B) SLR-102

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automati cally done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*2 |
| Picture tube: | 37.1cm(14-inch), HR Trinitron tube, visible picture size 33.2cm(min.) (13-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 80W |
| Dimensions: | 346 (W) × 340 (H) × 414 (D)mm ($13^5/_8 \times 13^3/_8 \times 16^5/_{16}$ inches) |
| Mass: | 15 kg (33lb 1oz) |




**VIDEO**

| | |
|---|---|
| LINE A*3 | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*4<br>Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*4<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*4<br>NTSC:0.286Vp-p, Automatic 75Ω termination*4 |
| LINE B*3 | BNC<br>1.0Vp-p, sync negative, 75Ω<br>Mini DIN 4-pin<br>Y: 1.0Vp-p, sync negative, 75Ω<br>C: PAL:0.3Vp-p, sync negative, 75Ω<br>NTSC:0.286Vp-p, 75Ω |
| RGB/Sync | BNC<br>R/G/B: 0.7Vp-p, 75Ω<br>Sync on G: 0.3Vp-p, 75Ω<br>Sync: 4Vp-p, 75Ω |

**AUDIO**

| | |
|---|---|
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Phono<br>-5dBu, high impedance |
| RGB/Sync | Phono<br>-5dBu, high impedance |

*1 PVM-14N2A is an Australian version.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 The Y/C input has priority over the Compsite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

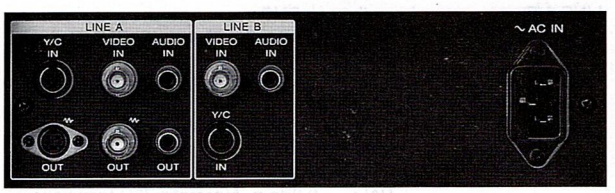
## 14" PVM-14N1E/14N1A*1 (PAL/NTSC/SECAM/NTSC4.43)

•Resolution of 500TV lines •Beam current feedback circuit for stability in the color balance •Accepts composite video and Y/C signals •On-screen menu for adjustment/operation •Built-in speaker •Mountable into a 19-inch EIA standard rack with the optional MB-502 and SLR-102

Optional accessories: Rack mounting bracket kit MB-502B
Slide rail kit (used with the MB-502B) SLR-102

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*1 |
| Picture tube: | 37.1cm(14-inch), HR Trinitron tube, visible picture size 33.2cm(min.) (13-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 80W |
| Dimensions: | 346 (W) × 340 (H) × 414 (D)mm ($13^5/_8 \times 13^3/_8 \times 16^5/_{16}$ inches) |
| Mass: | 15 kg (33lb 1oz) |
| **VIDEO** | |
| LINE A*3 | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*4<br>Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*4<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*4<br>NTSC:0.286Vp-p, Automatic 75Ω termination*4 |
| LINE B*3 | BNC<br>1.0Vp-p, sync negative, 75Ω<br>Mini DIN 4-pin<br>Y: 1.0Vp-p, sync negative, 75Ω<br>C: PAL:0.3Vp-p, sync negative, 75Ω<br>NTSC:0.286Vp-p, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Phono<br>-5dBu, high impedance |



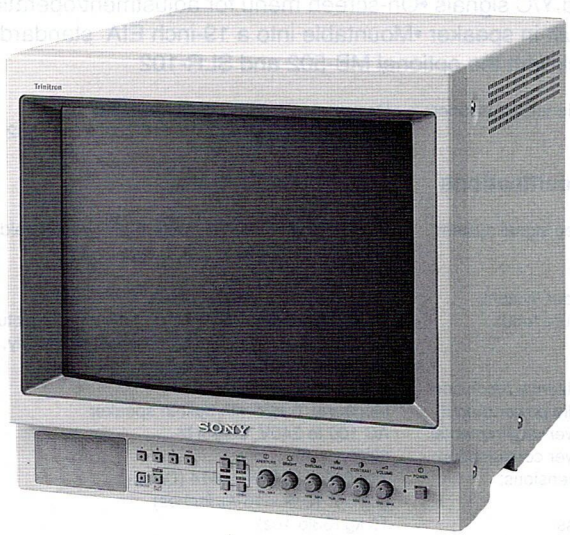

*1 PVM-14N1A is an Australian version.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 The Y/C input has priority over the Compsite vdeio input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 14" PVM-1450MD (PAL/NTSC/SECAM/NTSC4.43)

### Colour monitor for medical use

•Beam current feedback circuit for stable colour reproduction •Auto chroma/phase setup*1 •On-screenl display for adjustment/operation •6500K colour temperature •Accepts RGB video signals •Blue only mode •Mountable into a 19-inch EIA standard rack with optional MB-502B and SLR-102 •White colour cabinet •Complies with IEC-601-1

Optional accessories: Mounting bracket MB-502B
Slide rail kits SLR-102




### Specifications

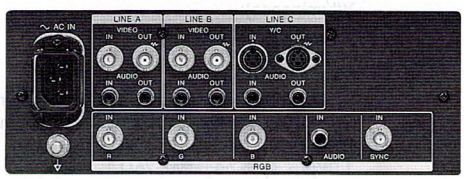
| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*2 (automatically selected) |
| Picture tube: | 36.8cm(14-inch), Fine pitch Trinitron tube visible picture size 33.3cm(13-inch)measured diagonally, 90° deflection |
| Horizontal resolution: | 450TV lines at centre(Video inputs) |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V 1.4 to 0.8A, 50/60Hz |
| Power consumption: | 90W |
| Dimensions: | 346(W) × 340(H) × 411.5(D)mm ($13^5/_8 \times 13^1/_2 \times 16^1/_4$ inches) |
| Mass: | 16.7kg(36 lb 13 oz) |

**VIDEO**

| | |
|---|---|
| LINE A/B | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*3 |
| LINE C | Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative,Automatic 75Ω termination*3<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination*3<br>NTSC:0.286Vp-p, Automatic 75Ω termination*3 |
| RGB | RGB: BNC<br>0.7Vp-p, 75Ω<br>External sync:BNC<br>4Vp-p negative, 75Ω |

**AUDIO**

| | |
|---|---|
| LINE A/B | Loop-through Phono<br>-5dBu, high impedance |
| LINE C | Loop-through Phono<br>-5dBu, high impedance |
| RGB | Phono<br>-5dBu, high impedance |




DISPLAY PRODUCTS

*1 Phase setup is for NTSC signals only.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 9" PVM-9044QM (PAL/NTSC/SECAM/NTSC4.43)

**Ideal for picture evaluation in studio, ENG/EFP applications**

•Switchable aspect ratio(4:3 and 16:9) •High resolution of 450 TV lines at centre •Employs a beam current feedback circuit for stability in the colour balance •Three inputs: Component(Y/R-Y/B-Y or RGB), LINE A(Composite video or Y/C), LINE B(Composite video) •Accepts external sync and sync on Green •Blue only, H/V delay, Underscan capability •AC/DC operation capability using one or two NP-1B battery pack or a BP-90A with DC-210 adapter •Wired remote control capability •Built-in speaker •Tally input •Can be used with the optional DMIF-1000 for Component Serial Digital Video Signal input and DMIF-2000 for Composite Serial Digital Video Signal input •19-inch EIA standard rack mountable with a second PVM-9044QM or the optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

| | |
|---|---|
| Supplied accessories: | AC power cord, Mini DIN 8-pin connector with cable (cable length 350mm, 13 7/8 inches), Tally number plates (12 pcs: No.1 to 5, A, B, C, P, R, white × 2 pcs), Operation manual |
| Optional accessories: | TV tuner unit TU-1040E<br>Monitor ENG kit VF-505 (Monitor hood and cord reel)<br>Rack mounting bracket MB-507<br>Blank panel MB-509<br>Rechargeable battery pack NP -1B<br>Rechargeable battery pack BP-90A<br>Battery case (for BP-90A) DC-210<br>Battery charger (for four NP-1Bs) BC-1WDCE<br>Battery charger (for four NP-1Bs and four BP-90A) BC-410CE<br>Component digital monitor interface DMIF-1000<br>Composite digital monitor interface DMIF-2000 |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*1 (automatically selected) |
| Picture tube: | 22cm (9-inch) HR Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection |
| Horizontal resolution: | 450TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC: 100 to 240V 0.7 to 0.4A, 50/60Hz<br>DC: 12V 3.7A |
| Power consumption: | AC: 43W<br>DC: 40W |
| Dimensions: | 217(W) × 217(H) × 352.5(D)mm ($8^5/_8 \times 8^5/_8 \times 14$ inches) |
| Mass: | 7.5kg (16 lb 9.5oz) |
| **VIDEO** | |
| LINE A | |
| Composite*2: | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*3 |
| Y/C*2: | Loop-through Mini DIN 4-pin<br>Y(luminance): 1Vp-p, sync negative, Automatic 75Ω termination*3<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination*3<br>NTSC:0.286Vp-p, Automatic 75Ω termination*3 |
| LINE B | |
| | Composite: Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*3 |
| RGB/Component*4 | BNC |
| R/R-Y: | Non-composite: 0.7Vp-p, 75Ω |
| Sync on Green/G/Y: | |
| | Composite: 1Vp-p, sync negative, 75Ω<br>Non-composite: 0.7Vp-p, 75Ω |
| B/B-Y: | Non-composite: 0.7Vp-p,75Ω |
| External sync | Loop-through BNC<br>4Vp-p negative, Automatic 75Ω termination*3 |
| Tally | Mini DIN 8-pin |
| DC | XLR 4-pin |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | Phono<br>-5dBu, high impedance |

*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*4 Video amplitude 100/0/100 colour bars.

## 9" PVM-9043MD (PAL/NTSC/NTSC4.43)

### Colour video monitors for medical use

•High resolution of 450TV lines at centre •Beam current feedback circuit for stable colour reproduction •Colour temperature 6500K •19-inch EIA standard rack mountable with a second PVM-9043MD or the optional blank panel MB-509 by using an optional MB-507 rack mounting bracket •White colour cabinet •Complies with IEC-601-1 safety regulation

Supplied accessories: Splash proof adapter
Front panel cover
Operation manual

Optional accessories: Rack mounting bracket MB-507
Blank panel MB-509

### Specifications

**General**

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/NTSC4.43*1 (automatically selected) |
| Picture tube: | 22cm (9-inch) HR Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection |
| Horizontal resolution: | 450TV lines |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC 100 to 240V 0.7 to 0.4A, 50/60Hz |
| Power consumption: | 45W |
| Dimensions: | 217(W) × 217(H) × 352.5(D)mm ($8^5/_8 \times 8^5/_8 \times 14$ inches) |
| Mass: | 7.8kg (17 lb 3 oz) |

**VIDEO**

LINE A

Composite*2: Loop-through BNC, 1.0Vp-p, sync negative, Automatic 75Ω termination*3

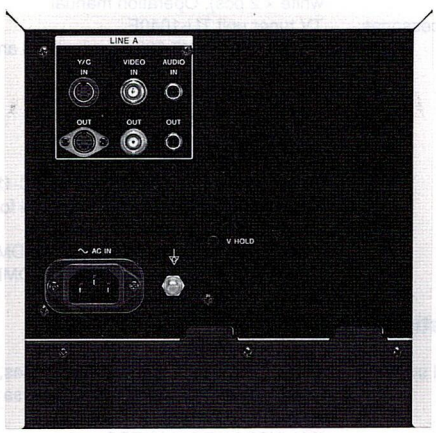
Y/C*2: Loop-through Mini DIN 4-pin

Y(luminance); 1.0Vp-p, sync negative, Automatic 75Ω termination*3

C(chrominance);

PAL: 0.3Vp-p, Automatic 75Ω termination*3

NTSC: 0.286Vp-p, Automatic 75Ω termination*3




**AUDIO**

LINE A

Loop-through Phono
-5dBu, high impedance

*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 9" PVM-9041QM (PAL/NTSC/SECAM/NTSC4.43)

**Suitable for multi-purpose use in various applications**

•Switchable aspect ratio(4:3 and 16:9) •Employs a beam current feedback circuit for stability in the colour balance •Three input: Component(Y/R-Y/B-Y or RGB), LINE A(Composite video or Y/C), LINE B(Composite video) •Accepts external sync and sync on Green •Blue only mode, H/V delay, Underscan capability •AC/DC operation capability using one or two NP-1B battery pack or BP-90A with DC-210 adapter •Wired remote control capability •Built-in speaker •Tally input •Can be used with the optional DMIF-1000 for Component Serial Digital Video Signal input and DMIF-2000 for Composite Serial Digital Video Signal input•19-inch EIA standard rack mountable with a second PVM-9041QM or the optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

| | |
|---|---|
| Supplied accessories: | AC power cord, Mini DIN 8-pin connector with cable (cable length 350mm, 13 7/8 inches), Tally number plates (12 pcs: No.1 to 5, A, B, C, P, R, white × 2 pcs), Operation manual |
| Optional accessories: | TV tuner unit TU-1040E<br>Monitor ENG kit VF-505 (Monitor hood and cord reel)<br>Rack mounting bracket MB-507<br>Blank panel MB-509<br>Rechargeable battery pack NP-1B<br>Rechargeable battery pack BP-90A<br>Battery case (for BP-90A) DC-210<br>Battery charger (for four NP-1Bs) BC-1WDCE<br>Battery charger (for four NP-1Bs and four BP-90A) BC-410CE<br>Component digital monitor interface DMIF-1000<br>Composite digital monitor interface DMIF-2000 |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*1 (automatically selected) |
| Picture tube: | 22cm (9-inch) Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection |
| Horizontal resolution: | 250TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC: 100 to 240V 0.7 to 0.4A, 50/60Hz<br>DC: 12V 3.7A |
| Power consumption: | AC: 43W<br>DC: 40W |
| Dimensions: | 217(W) × 217(H) × 352.5(D)mm (85/8 × 85/8 × 14 inches) |
| Mass: | 7.5kg (16 lb 9.5oz) |

**VIDEO**

LINE A

| | |
|---|---|
| Composite*2: | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*3 |
| Y/C*2: | Loop-through Mini DIN 4-pin<br>Y(luminance): 1Vp-p, sync negative,<br>Automatic 75Ω termination*3<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination*3<br>NTSC:0.286Vp-p, Automatic 75Ω termination*3 |

LINE B

| | |
|---|---|
| Composite: | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*3 |
| RGB/Component*4 | BNC |
| R/R-Y: | Non-composite: 0.7Vp-p, 75Ω |
| Sync on Green/G/Y: | Composite: 1Vp-p, sync negative, 75Ω<br>Non-composite: 0.7Vp-p, 75Ω |
| B/B-Y: | Non-composite: 0.7Vp-p, 75Ω |

| | |
|---|---|
| External sync | Loop-through BNC<br>4Vp-p negative, Automatic 75Ω termination*3 |
| Tally | Mini DIN 8-pin |
| DC INPUT | XLR 4-pin |

**AUDIO**

| | |
|---|---|
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | Phono<br>-5dBu, high impedance |

*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*4 Video amplitude 100/0/100 colour bars.

## 9" PVM-9040ME (PAL/SECAM)

### Basic monitoring device

•Employs a beam current feedback circuit for stability in the colour balance •Composite video or Y/C input with audio input •Built-in speaker •19-inch EIA standard rack mountable with a second PVM-9040ME or the optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

Supplied accessories: AC power cord, Operation manual
Optional accessories: TV tuner unit TU-1040E
Rack mounting bracket MB-507
Blank panel MB-509
Composite digital monitor interface DMIF-2000

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields |
| Colour system: | PAL/SECAM (automatically selected) |
| Picture tube: | 22cm (9-inch) Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection |
| Horizontal resolution: | 250TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC: 100 to 240V 0.7 to 0.4A, 50/60Hz |
| Power consumption: | 39W |
| Dimensions: | 217(W) × 217(H) × 352.5(D)mm ($8^5/_8 \times 8^5/_8 \times 14$ inches) |
| Mass: | 7.5kg (16 lb 9.5oz) |

**VIDEO**

LINE

| | |
|---|---|
| Composite*1: | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*2 |
| Y/C*1: | Loop-through Mini DIN 4-pin<br>Y(luminance): 1Vp-p, sync negative,<br>Automatic 75Ω termination*2<br>C(chrominance):<br>0.3Vp-p, Automatic 75Ω termination*2 |

**AUDIO**

| | |
|---|---|
| LINE | Loop-through Phono<br>-5dBu, high impedance |

DISPLAY PRODUCTS

*1 The Y/C input has priority over the Composite video input.
*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 6" PVM-6041QM (PAL/NTSC/SECAM/NTSC4.43)

**Suitable for picture confirmation in ENG/EFP application and multiple camera monitoring**

•Employs a beam current feedback circuit for stability in the colour balance •Two input: Component (Y/R-Y/B-Y or RGB) input and Composite video input •Accepts external sync and sync on Green •Blue only, H/V delay, Underscan capability •AC/DC operation capability using one NP-1B battery pack or a BP-90A with DC-210 adapter •Wired remote control capability •Built-in speaker •Tally input •Can be used with the optional DMIF-1000 for Component Serial Digital Video Signal input and DMIF-2000 for Composite Serial Digital Video Signal input •19-inch EIA standard rack mountable with another two units of PVM-6041QM or two optional blank panel MB-508 by using the optional MB-507 rack mounting bracket

| | |
|---|---|
| Supplied accessories: | AC power cord, Mini DIN 8-pin connector with cable (cable length 350mm, 137/8 inches), Operation manual |
| Optional accessories: | TV tuner unit TU-1040E<br>Monitor ENG kit VF-504 (Monitor hood and cord reel)<br>Rack mounting bracket MB-507<br>Blank panel MB-508<br>Rechargeable battery pack NP-1B<br>Rechargeable battery pack BP-90A<br>Battery case (for BP-90A) DC-210<br>Battery charger (for four NP-1Bs) BC-1WDCE<br>Battery charger (for four NP-1Bs and four BP-90As) BC-410CE<br>Component digital monitor interface DMIF-1000<br>Composite digital monitor interface DMIF-2000 |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*1 (automatically selected) |
| Picture tube: | 14.7cm (6-inch) Trinitron tube, visible picture size 13cm (5-inch) measured diagonally, 70° deflection |
| Horizontal resolution: | 250TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC: 100 to 240V 0.7 to 0.4A, 50/60Hz, DC: 12V 3.2A |
| Power consumption: | AC: 40W<br>DC: 40W |
| Dimensions: | 146(W) × 173(H) × 352.5(D)mm ($5^3/_4 \times 6^7/_8 \times 14$ inches) |
| Mass: | 5.5kg (12 lb 2 oz) |
| **VIDEO** | |
| LINE | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*2 |
| RGB/Component*3 | BNC |
| R/R-Y: | Non-composite:0.7Vp-p, 75Ω |
| G/Sync on Green/Y: | Composite:1Vp-p, sync negative, 75Ω<br>Non-composite:0.7Vp-p, 75Ω |
| B/B-Y: | Non-composite:0.7Vp-p, 75Ω |
| External sync | BNC<br>4Vp-p negative, 75Ω |
| **AUDIO** | |
| LINE | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | Phono<br>-5dBu, high impedance |

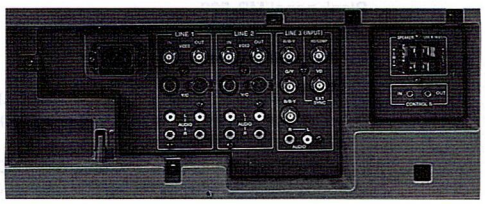
*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*3 RGB and Y/R-Y/B-Y input is switch selectable.

## 29" PVM-2950QM (PAL/NTSC/SECAM/NTSC4.43)

### Cubic style monitor

•Switchable aspect ratio(4:3 and 16:9) •A high resolution of 600TV lines •Beam current feedback circuit for stability in the colour balace •On-screen menu for adjustment/operation •Accepts Composite video, Y/C, Component(Y/R-Y/B-Y or RGB) signals •Supplied wireless remote control unit RM-854 controls all monitor functions

Supplied accessories: AC power cord, AC plug holder, Remote controller RM-854, Battery for RM-854, Operation manual
Optional accessories: Speakers: SS-X6A
TV tuner unit TU-1040E




### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*1 (automatically selected) |
| Picture tube: | 72.9cm(29-inch), Super Trinitron tube, visible picture size 67.5cm(27-inch)measured diagonally, 110° deflection |
| Horizontal resolution: | 600TV lines |
| Audio power output: | 7W+7W, 8 to 16Ω |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 165W (typical) |
| Dimensions: | 687(W) × 538(H) × 529(D)mm ($27^1/_8 \times 21^1/_4 \times 20^7/_8$ inches) |
| Mass: | 52kg(114 lb 10oz) |
| **VIDEO** | |
| LINE 1/2 | |
| Composite*2: | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*3 |
| Y/C*2: | Loop-through Mini DIN 4-pin<br>Y(luminance):1Vp-p, sync negative, Automatic 75Ω termination*3<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*3<br>NTSC:0.286Vp-p, Automatic 75Ωtermination*3 |
| LINE 3 | |
| RGB/Component: | BNC |
| R/R-Y: | Non-composite: 0.7Vp-p, 75Ω |
| Sync on G/G/Y: | Composite: 1Vp-p, sync negative, 75Ω<br>Non-composite: 0.7Vp-p, 75Ω |
| B/B-Y: | Non-composite: 0.7Vp-p, 75Ω |
| Sync: | Composite sync: BNC<br>Analogue level: 0.5 to 5Vp-p, high impedance,positive/negative<br>TTL level: positive/negative<br>HD/VD separate:BNC<br>Analogue level: 0.5 to 5Vp-p, high impedance,positive/negative<br>TTL level: positive/negative |
| **AUDIO** | |
| LINE 1/2 | Loop-through Phono (×2)<br>-5dBu, high impedance |
| LINE 3 | Phono (×2)<br>-5dBu, high impedance |

RM-854

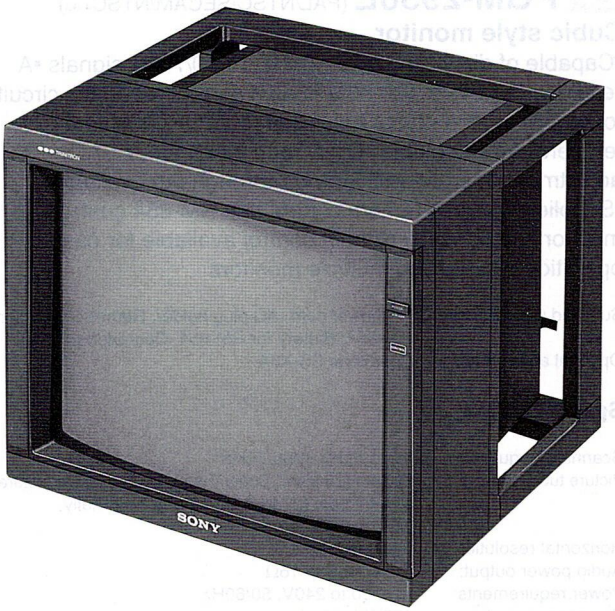
*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 Y/C input has priority over the Composite video input.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

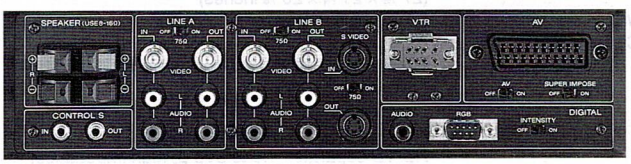
## 21" PVM-2130QM (PAL/NTSC/SECAM/NTSC4.43)

### Cubic style monitor

•A high resolution of 420TV lines (video input), 640 × 200 pixels (RGB input) •Y/C input •Employs a beam current feedback circuit for stability in the colour balance •Built-in interface for IBM PC with a CGA card •Touch key control and supplied remote control unit RM-668 available for easy operation •Three video/audio inputs and two RGB inputs (CENELEC 21-pin/D-sub 9-pin)

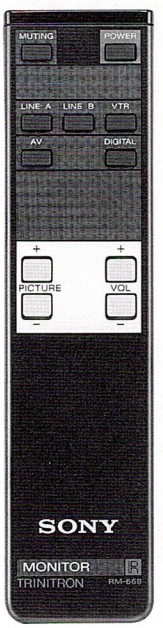
Supplied accessories: Remote control unit RM-688, Operation manual
Optional accessories: Speakers: SS-X6A
TV tuner unit TU-1040E
Tilt swivel: SU-538
Monitor stand: SU-540




### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*1 (automatically selected) |
| Picture tube: | 54.79cm (21-inch), fine pitch Trinitron tube, visible picture size 50.6cm (20-inch) measured diagonally, 100° deflection |
| Horizontal resolution: | 420TV lines (VIDEO IN), 640 × 200 pixels (RGB IN) |
| Audio power output: | 7W max. (with external speakers) |
| Power requirements: | AC 220/240V, 50/60Hz |
| Power consumption: | 140W |
| Dimensions: | 516(W) × 409(H) × 482(D)mm (20 3/8 × 16 1/8 × 19 inches) |
| Mass: | 30.6kg (67 lb 7 oz) |
| **VIDEO** | |
| LINE A | Loop-through BNC<br>1.0Vp-p, sync negative, 75Ω switchable |
| LINE B | |
| Composite*2: | Loop-through BNC<br>1.0Vp-p, sync negative, 75Ω termination switchable |
| Y/C (S VIDEO)*2: | Loop-through Mini DIN 4-pin<br>Y (luminance signal): 1Vp-p, sync negative, 75Ω termination switchable<br>C (chrominance signal): 0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω termination switchable |
| VTR | 8-pin<br>1.0Vp-p, sync negative, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono (×2)<br>-5dBu, high impedance |
| LINE B | Loop-through Phono (×2)<br>-5dBu, high impedance |
| VTR | 8-pin<br>-5dBu, high impedance more than 47kΩ, monaural |
| DIGITAL RGB | Phono<br>-5dBu, high impedance: |
| **CMPTR** | |
| AV IN | CENELEC 21-pin<br>For computer equipped with analogue RGB |
| DIGITAL RGB | D-sub 9-pin<br>For computer equipped with digital RGB |




RM-668

*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 Y/C (S VIDEO) input has priority over the Composite video input.

## 29" PGM-2950E (PAL/NTSC/SECAM/NTSC4.43)

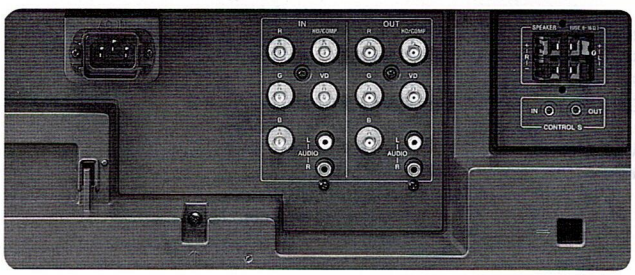
### Cubic style monitor

•Capable of displaying fH 31.5kHz, fV 60/70Hz signals •A resolution of 640 × 480 dots •Beam current feedback circuit for stability in the colour balace •9300K/6500K colour temperature selectable •On-screen menu for adjustment/operation •RGB loop-through out available •Supplied wireless remote control unit RM-854 controls all monitor functions •ID remote control available for easy operation when using multiple monitors

| | |
|---|---|
| Supplied accessories: | AC power cord, AC plug holder, Remote controller RM-854, Battery for RM-854, Operation manual |
| Optional accessories: | Speakers: SS-X6A |

### Specifications

| | |
|---|---|
| Scanning frequency: | fH 31.5kHz, fV60/70Hz |
| Picture tube: | 72.9cm (29-inch), Super Trinitron tube, visible picture size 67.5cm (27-inch)measured diagonally, 110° deflection |
| Horizontal resolution: | 640 × 480 dots |
| Audio power output: | 7W+7W, 8 to 16Ω |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 186W (typical) |
| Dimensions: | 687(W) × 538(H) × 529(D)mm ($27^1/_8 \times 21^1/_4 \times 20^7/_8$ inches) |
| Mass: | 53kg(116 lb 13oz) |
| **COMPUTER** | |
| R/G/B: | Loop-through BNC, Non-composite: 0.7Vp-p 75Ω |
| Sync: | Loop-through BNC, Composite: 1.0 to 5Vp-p, high impedance, positive/negative<br>HD/VD separate: 1.0 to 5Vp-p, high impedance, positive/negative |
| **AUDIO** | Loop-through Phono (×2) -5dBu, high impedance |



RM-854

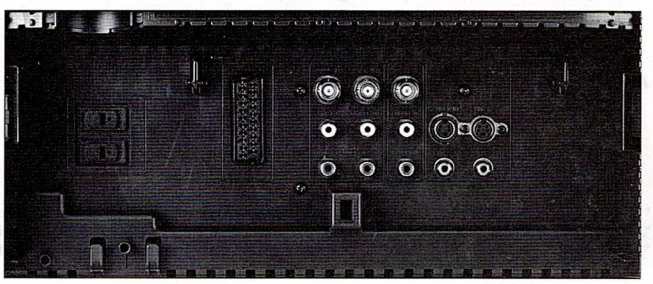
DISPLAY PRODUCTS

## 29" KX-2920QM*1 (PAL/NTSC/SECAM/NTSC4.43)

### Colour video montior

• 72cm (29-inch) SUPER Trinitron CRT •Accepts composite, Y/C signals •Built-in speaker and earphone jack for audio monitoring

Supplied accessories: Remote controller RM-831, Operation manual
Optional accessories: Speakers:SS-X6A
TV tuner unit:TU-1040E



### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*2 |
| Picture tube: | 73cm (29-inch), Super Trinitron tube, visible picture size 68cm (27-inch)measured diagonally, 110° deflection |
| Horizontal resolution: | 480 TV lines |
| Audio power output: | 7W+7W, 8 to 16Ω |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 109W (typical) |
| Dimensions: | 668(W) × 645(H) × 525(D)mm ($26^3/_8 \times 25^1/_2 \times 20^3/_4$ inches) |
| Mass: | 53kg(116 lb 13oz) |

**VIDEO**

| | |
|---|---|
| Line 1 | CENELEC 21-pin |
| Line 2 | Loop-through BNC<br>1Vp-p, sync negative, Automatic 75Ω termination*3 |
| Line 3 (front panel) | Composite: Phono<br>1Vp-p, sync negative, 75Ω<br>Y/C: Mini DIN 4-pin<br>Y (luminance): 1Vp-p, sync negative, 75Ω<br>C (chrominance): PAL: 0.3Vp-p, 75Ω<br>NTSC: 0.286Vp-p, 75Ω |
| Line 4 | Y/C: Loop-through Mini DIN 4-pin<br>Y (luminance): 1Vp-p, sync negative, Automatic 75Ωtermination*3<br>C (chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination*3<br>NTSC: 0.286Vp-p,Automaic 75Ω termination*3 |

**AUDIO**

| | |
|---|---|
| Line 1 | CENELEC 21-pin |
| Line 2 | Loop-through Phono (×2)<br>-5dBu, high impedance |
| Line 3 (front panel) | Phono<br>-5dBu, high impedance |
| Line 4 | Loop-through Phono (×2)<br>-5dBu, high impedance |

*1 This product is not available in some areas. For details, please consult your nearest Sony office.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 21" KX-2110QM*1 (PAL/NTSC/SECAM/NTSC4.43)

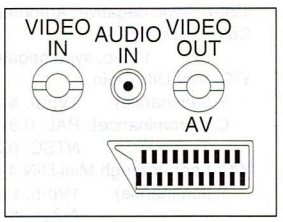
### Colour video monitor

•Black Trinitron CRT •Equipped with composite and RGB video connectors •Built-in speaker and earphone jack for audio monitoring

Supplied accessories: Remote commander RM-841, Operation manual
Optional accessories: Speakers:SS-X6A
TV tuner unit:TU-1040E

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*2(automatically selected) |
| Picture tube: | 55cm (21-inch) Hi-Black Trinitron tube, visible picture size 51cm (20-inch) measured diagonally, 100° deflection |
| Horizontal resolution: | 250TV lines |
| Audio power output: | 4W |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 65W |
| Dimensions: | 513(W) × 487(H) × 475(D)mm ($20^1/_8 \times 19^1/_4 \times 18^3/_4$ inches) |
| Mass: | 24kg (52 lb 15 oz) |
| **VIDEO** | |
| Composite: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination*3 |
| RGB: | CENELEC 21-pin |
| **AUDIO** | Phono -5dBu, high impedance |




*1 This product is not available in some areas. For details, please consult your nearest Sony office.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

DISPLAY PRODUCTS

## 14" KX-1410QM*1 (PAL/NTSC/SECAM/NTSC4.43)

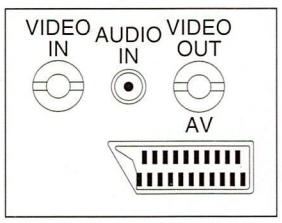
### Colour video monitor

•Black Trinitron CRT •Equipped with composite and RGB video connectors •Built-in speaker and earphone jack for audio monitoring

Supplied accessories: Remote commander RM-841, Operation manual
Optional accessories: Speakers:SS-X6A
TV tuner unit:TU-1040E

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*2(automatically selected) |
| Picture tube: | 36cm (14-inch) Black Trinitron tube, visible picture size 33.7cm (13-inch) measured diagonally, 90° deflection |
| Horizontal resolution: | 250TV lines |
| Audio power output: | 4W |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 45W |
| Dimensions: | 359(W) × 345(H) × 409(D)mm ($14^1/_4 \times 13^5/_8 \times 16^1/_8$ inches) |
| Mass: | 10.5kg (23 lb 2 oz) |
| **VIDEO** | |
| Composite: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination*3 |
| RGB: | CENELEC 21-pin |
| **AUDIO** | Phono -5dBu, high impedance |

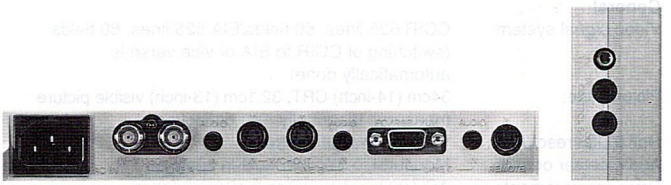



*1 This product is not available in some areas. For details, please consult your nearest Sony office.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 10.4" LMD-1041

### Multi-input LCD monitor

•Lightweight and compact design •Accepts not only computer signals (fH: 15kHz to 36kHz), but also a wide variety of video signals •Remarkably beautiful colour reproduction with the brilliant full-colour, high resolution LCD panel •Underscan function available •IR remote control available for easy operation when using multiple monitors •Stereo speaker available •Kensington MicroSaver Security System®, wire can be attached as a security measure •On-screen menu for facilitated operation



| | |
|---|---|
| Supplied accessories: | Stand<br>Screws to secure stand (×2)<br>AC power cord<br>Remote control commander RM-LMD1041<br>Operating instructions |

### Specifications

**General**

| | |
|---|---|
| Video signal system | CCIR 625 lines, 50 fields*/EIA 525 lines, 60 fields |
| Colour system | PAL*/NTSC |
| Scanning frequency | VGA, Macintosh 13-inch mode<br>(fH: 15 to 36kHz, fV: 45 to 73Hz) |
| Panel type | a-Si TFT Active Matrix LCD<br>10.4-inch (264mm) diagonal, viewable area<br>10.4-inch (264mm) (PAL, Computer)/<br>10.2-inch (259.3mm) (NTSC) diagonal |
| Pixel area | 211 (H) × 158mm (V)<br>($8^3/_8 \times 6^1/_4$ inches)<br>10.4-inch (264mm) diagonal |
| Number of dots | 640 RGB × 480 dots |
| Display colour | Analogue full colour |
| Backlight | Cold cathode fluorescent light |
| Power requirements | AC 100 to 240V, 50Hz/60Hz |
| Power consumption | 28W max. (normal operation)<br>7W max. (standby) |
| Storage temperature | -20 to 60°C (-4 to 140°F) |
| Operating temperature | 5 to 35°C (41 to 95°F) |
| Dimensions: | 305(W) × 215.3(H) × 57.4(D)mm<br>($12 \times 8^4/_9 \times 2^1/_4$ inches)<br>(projection not included) |
| Mass | Approx. 2kg (4 lb 6 oz)<br>(stand not included) |

**Video**

| | |
|---|---|
| Line A | Loop-through BNC<br>1Vp-p±2dB sync negative, 75Ω |
| Line B | Loop-through Mini DIN 4-pin<br>Y: 1Vp-p±2dB sync negative, 75Ω<br>C: PAL 0.3Vp-p±2dB, 75Ω,<br>NTSC 0.286Vp-p±2dB |
| Line C | HD D-sub 15-pin<br>YUV: R-Y/B-Y: 0.7Vp-p<br>Y:1.0Vp-p (sync 0.3V) |
| RGB: | R/B/G: 0.7Vp-p<br>C sync: 1.0Vp-p |

**Computer**

| | |
|---|---|
| Computer | HD D-sub 15-pin (Line C)<br>RGB: 0.7Vp-p, 75Ω<br>Sync:<br>Composite sync: TTL level negative<br>Separate sync: TTL level negative/positive<br>Sync on G: 0.3Vp-p, negative |

**Audio**

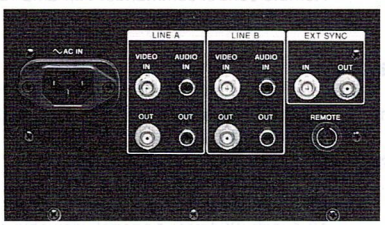
| | |
|---|---|
| Audio signal | Mini jack<br>input: Audio input -5dBu, 47kΩ or more<br>output: Headphone 16Ω or more<br>speaker 0.5W + 0.5W |

* Line reduction PAL signal.

## 14" PVM-146E (CCIR/EIA)

### Black & white monitor

•CCIR or EIA automatic selection •Switchable aspect ratio(4:3 and 16:9) •A high resolution of 1000TV lines at centre •Incorporates a CRT with D65 •H/V delay, Underscan capability •Equipped with a notch filter •Built-in speaker for audio monitoring •Accepts external sync •Tally input •Rack mountable with the optional mounting bracket MB-502B and slide rail kit SLR-102




Supplied accessories: AC power cord, AC plug holders, Number plate (1 set), Remote connector 8-pin, Operation manual
Optional accessories: Rack mounting bracket MB-502B, Slide rail kit SLR-102

### Specifications

**General**

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Picture tube: | 34cm (14-inch) CRT, 32.1cm (13-inch) visible picture measured diagonally, 90° deflection |
| Horizontal resolution: | 1000TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC 100 to 240V 0.3 to 0.18A, 50/60Hz |
| Power consumption: | 25W |
| Dimensions: | 346(W) × 340(H) × 330(D)mm ($13^5/_8 \times 13^1/_2 \times 13$ inches) |
| Mass: | 11kg (24 lb 4 oz) |

**VIDEO**

| | |
|---|---|
| Line A: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| Line B: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| External sync: | Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination* |

**AUDIO**

| | |
|---|---|
| Line A: | Loop-through Phono, -5dBu, high impedance |
| Line B: | Loop-through Phono, -5dBu, high impedance |

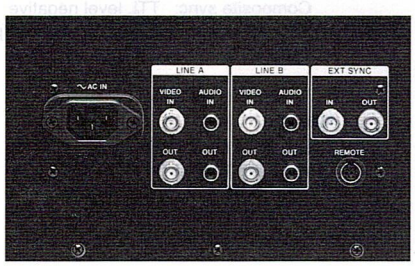
* 75Ω termination is automatically set to OFF when connection is made to the OUT connector

DISPLAY PRODUCTS

## 14" PVM-145E (CCIR/EIA)

### Black & white monitor

•CCIR or EIA automatic selection •A high resolution of 1000TV lines at centre •Built-in speaker for audio monitoring •Accepts external sync •Rack mountable with the optional mounting bracket MB-502B and slide rail kit SLR-102




Supplied accessories: AC power cord, AC plug holders, Operation manual
Optional accessories: Rack mounting bracket MB-502B, Slide rail kit SLR-102

### Specifications

**General**

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Picture tube: | 34cm (14-inch) CRT, 32.1cm (13-inch) visible picture measured diagonally, 90° deflection |
| Horizontal resolution: | 1000TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC 100 to 240V 0.3 to 0.18A, 50/60Hz |
| Power consumption: | 25W |
| Dimensions: | 346(W) × 340(H) × 330(D)mm ($13^5/_8 \times 13^1/_2 \times 13$ inches) |
| Mass: | 11kg (24 lb 4 oz) |

**VIDEO**

| | |
|---|---|
| Line A: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| Line B: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| External sync: | Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination* |

**AUDIO**

| | |
|---|---|
| Line A: | Loop-through Phono, -5dBu, high impedance |
| Line B: | Loop-through Phono, -5dBu, high impedance |

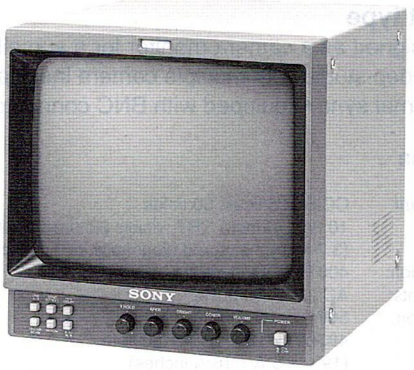
* 75Ω termination is automatically set to OFF when connection is made to the OUT connector

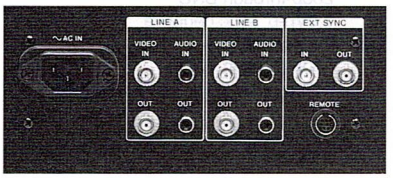
## 9" PVM-96E (CCIR/EIA)

### Black & white monitor

•CCIR/EIA automatic selection •Switchable aspect ratio (4:3 and 16:9) •A high resolution of 900TV lines at center •Incorporates a CRT with D65 •H/V delay, Underscan capability •Equipped with a notch filter •Built-in speaker for audio monitoring •Accepts external sync •Tally input •Rack mountable with a second PVM-96E or an optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

Supplied accessories: AC power cord, AC plug holders, Remote connector 8-pin, Operation manual
Optional accessories: Rack mounting bracket MB-507
Blank panel MB-509




### Specifications

**General**

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Picture tube: | 23.0cm (9-inch) CRT, 21.7cm (9-inch) visible picture measured diagonally, 90° deflection |
| Horizontal resolution: | 900TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC 100 to 240V 0.3 to 0.18A, 50/60Hz |
| Power consumption: | 23W |
| Dimensions: | 217(W) × 218(H) × 250(D)mm ($8^5/_8 \times 8^5/_8 \times 9^7/_8$ inches) |
| Mass: | 5.5kg (12 lb 2 oz) |

**VIDEO**

| | |
|---|---|
| Line A: | Loop-through BNC<br>1Vp-p, sync negative, Automatic 75Ω termination* |
| Line B: | Loop-through BNC<br>1Vp-p, sync negative, Automatic 75Ω termination* |
| External sync: | Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination* |

**AUDIO**

| | |
|---|---|
| Line A: | Loop-through Phono, -5dBu, high impedance |
| Line B: | Loop-through Phono, -5dBu, high impedance |

* 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

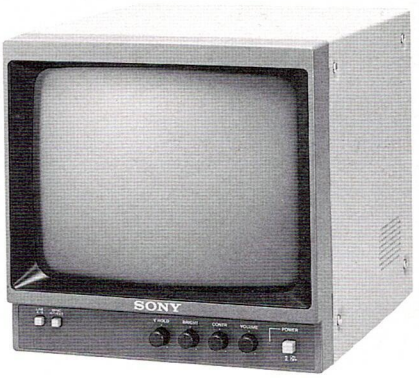
DISPLAY PRODUCTS

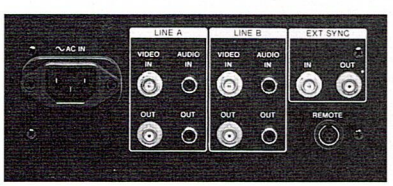
## 9" PVM-95E (CCIR/EIA)

### Black & white monitor

•CCIR/EIA automatic selection •A high resolution of 900TV lines at centre •Built-in speaker for audio monitoring •Accepts external sync •Rack mountable with a second PVM-95E or an optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

Supplied accessories: AC power cord, AC plug holders, Operation manual
Optional accessories: Rack mounting bracket MB-507
Blank panel MB-509




### Specifications

**General**

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Picture tube: | 23.0cm (9-inch) CRT, 21.7cm (9-inch) visible picture measured diagonally, 90° deflection |
| Horizontal resolution: | 900TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC 100 to 240V 0.3 to 0.18A, 50/60Hz |
| Power consumption: | 23W |
| Dimensions: | 217(W) × 218(H) × 250(D)mm ($8^5/_8 \times 8^5/_8 \times 9^7/_8$ inches) |
| Mass: | 5.5kg (12 lb 2 oz) |

**VIDEO**

| | |
|---|---|
| Line A: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| Line B: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| External sync: | Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination* |

**AUDIO**

| | |
|---|---|
| Line A: | Loop-through Phono, -5dBu, high impedance |
| Line B: | Loop-through Phono, -5dBu, high impedance |

* 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

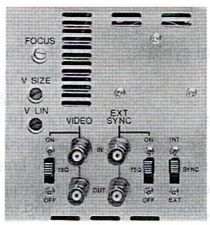
## 4" × 4 PVM-411CE (CCIR)

### Rack mount type

•Specially designed as a camera monitor for a surveillance system or a video studio with multiple camera installation
•Accepts external sync •Equipped with BNC connectors

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields |
| Picture tube: | 10.3cm (4-inch) CRT, visible picture size 9.4cm (3.7-inch) measured diagonally, 50° deflection |
| Horizontal resolution: | 400TV lines at centre |
| Power requirements: | AC 220V, 50/60Hz |
| Power consumption: | 56W |
| Dimensions: | 483(W) × 133(H) × 410(D)mm (19 1/8 × 5 1/4 × 16 1/4 inches) |
| Mass: | 14.2kg (30 lb 14 oz) |
| Video | Loop-through BNC<br>1.0Vp-p, sync negative,<br>75Ω switchable |
| Sync | Loop-through BNC<br>4.0Vp-p negative, 75Ω switchable |



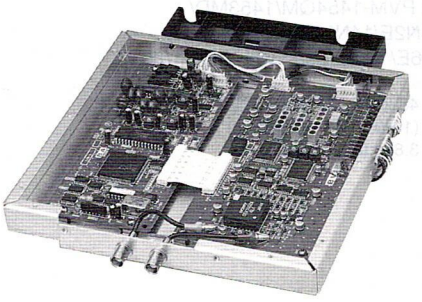

DISPLAY PRODUCTS

## BKM-101C/102

**Component serial digital interface kit 101C (video)/ 102(audio)**

•Component serial digital interface for PVM-2054QM/1454QM

Mass: BKM-101C: 820g (1 lb 13 oz)
870g (1 lb 15 oz)
(with installation kit for PVM-2054QM)
BKM-102: 130g (4.6oz)



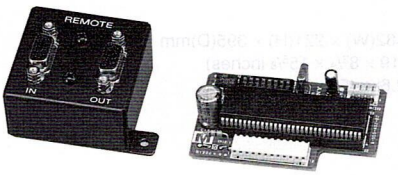
BKM-101C/102

## BKM-103

**Serial remote contol kit**

• RS-422 serial remote contol kit for PVM-2054QM/1454QM

Mass: 157g (5.5 oz)






## DMIF-1000

**Component serial digital interface**

•Component serial digital interface for PVM-9044QM/9041QM/ 6041QM

Dimensions: 212(W) × 44(H) × 280(D)mm
($8^3/_8 \times 1^3/_4 \times 11^1/_8$ inches)
Mass: 2kg (4lb 6 oz)

## DMIF-2000

**Composite serial digital interface**

•Composite serial digital interface for PVM series monitors

Dimensions: 212(W) × 44(H) × 280(D)mm
($8^3/_8 \times 1^3/_4 \times 11^1/_8$ inches)
Mass: 2kg (4lb 6 oz)

## MB-502B

**Mounting bracket**

•Bracket for PVM-1454QM/1453MD/1450QM/14N2E/14N2A/14N1E/14N1A 1450MD/146E/145E (used with SLR-102)

Dimensions: 483(W) × 355(H) × 302(D)mm (19 1/8 × 14 × 12 inches)
Mass: 3.8kg (8 lb 6 oz)

## MB-507

**Mounting bracket**

•Bracket for PVM-9044QM/9043MD/9041QM/9040ME/9040MD/6041QM/96E/95E

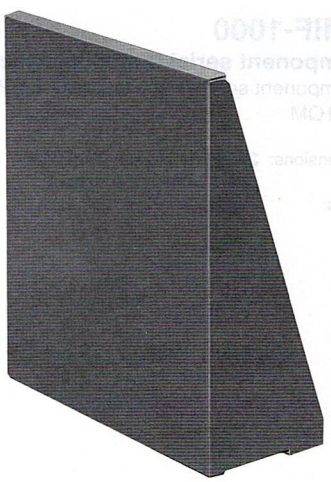
Dimensions: 482(W) × 221(H) × 395(D)mm (19 × 8 3/4 × 15 5/8 inches)
Mass: 2.6kg (5 lb 11 oz)

## MB-508

**Mounting attachment**

•Blank panel for PVM-6041QM

Dimensions: 146(W) × 168.5(H) × 63(D)mm (5 3/4 × 6 3/4 × 2 1/2 inches)
Mass: 0.2kg (7 oz)

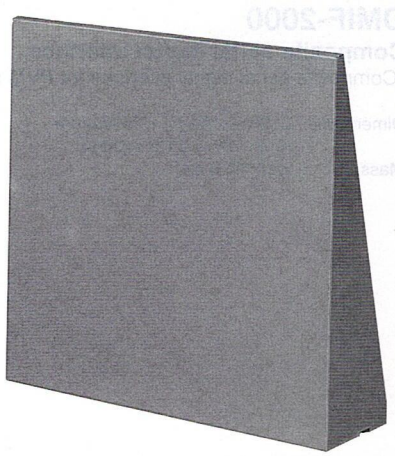


## MB-509

**Mounting attachment**

•Blank panel for PVM-9044QM/9043MD/9041QM/9040ME/9040MD/96E/95E

Dimensions: 217(W) × 212.5(H) × 63(D)mm (8 5/8 × 8 3/8 × 2 1/2 inches)
Mass: 0.4 kg (14 oz)

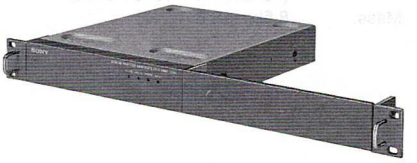


## MB-510

**Mounting bracket**

•Bracket for DMIF-1000/2000

Dimensions (with 2 DMIF-1000/2000):
482(W) × 44(H) × 280(D)mm
(19 × 1 3/4 × 11 1/8 inches)
Mass: 0.3kg (10 oz)



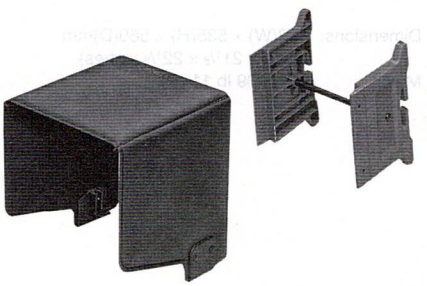
MB-510 with DMIF-1000

## VF-504

**Monitor ENG kit**

•Monitor hood and cord reel for PVM-6041QM

Dimensions: Hood:
159(W) × 172(H) × 160(D)mm
(6 3/8 × 6 7/8 × 6 3/8 inches)
(with PVM-6041QM):
159(W) × 178(H) × 567.5(D)mm
(6 3/8 × 7 1/8 × 22 3/8 inches)
Mass: 0.4 kg (14 oz)



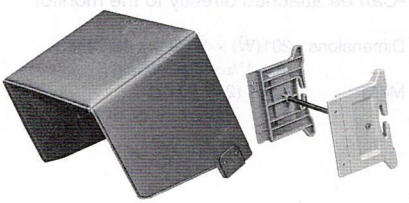


## VF-505

**Monitor ENG kit**

•Monitor hood and cord reel for PVM-9044QM/9041QM

Dimensions: Hood:
230(W) × 215(H) × 200(D)mm
(9 1/8 × 8 1/2 × 7 7/8 inches)
(with PVM-9044QM/9041QM):
230(W) × 222(H) × 607.5(D)mm
(9 1/8 × 8 3/4 × 24 inches)
Mass: 0.5kg (17 oz)



## DCC-XLR4

**Car battery cord**

• Car battery cord for PVM-9044QM 9041QM/6041QM

## SU-538
**Tilt swivel stand**
•For PVM-2130QM

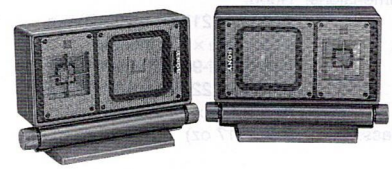
Dimensions: 492(W) × 121(H) × 459(D)mm
(19 3/8 × 4 7/8 × 18 1/8 inches)
Mass: 8.5kg (18 lb 12 oz)

## SU-540
**Monitor stand**
•For PVM-2130QM

Dimensions: 512(W) × 535(H) × 560(D)mm
(20 1/4 × 21 1/8 × 22 1/8 inches)
Mass: 18kg (39 lb 11 oz)

## SS-X6A
**Speaker system (one pair)**
•For PVM-2130QM
•Magnetically shielded
•Can be attached directly to the monitor

Dimensions: 201(W) × 113(H) × 83(D)mm
(8 × 4 1/2 × 3 3/8 inches)
Mass: 1.2kg (2 lb 10 oz)



## TU-1040E
**TV tuner unit**
•TV tuner unit compatible with various TV broadcast systems: B/G/H, L, I and D/K

Dimensions: 212 (W) × 49.3 (H) × 361 (D)mm
(8 3/8 × 2 × 14 1/4inches)
Mass: 2.05kg (4 lb 8 oz)

## SLR-102/103A

**Slide rail kit**

•SLR-102 for PVM-1454QM/1453MD/1450QM/14N2E/14N2A/14N1E/14N1A/1450MD/146E/145E/SSM-14N1E

•SLR-103A for PVM-2054QM/20N2E/20N2A /20N1E/20N1A/20M7MDE/2053MD/SSM-20N1E

SLR-102

SLR-103A

# VPH-1292QM/1292QMG

(PAL/NTSC/SECAM/NTSC4.43)

•Multiscan capability: horizontal 15kHz to 135kHz, vertical 38Hz to 150Hz •Incorporates new, high resolution 9-inch electromagnetic focus CRTs •Incorporates a Universal Optical Coupling •Remarkable light output of 225lm (ANSI lumen*1), 1000lm (peak white), 300lm (all white) •High resolution of 700 TV lines/2000 × 1600 pixels (RGB in at fH:94kHz, fV:60Hz) •Wide RGB bandwidth of 120MHz •Registration adjustment at 21 points on the screen for accurate registration •HACC lens for superior and stable picture performance •Video decoder circuit for enhanced video picture quality*2 •Responds to both analogue/digital RGB signals •Supplied wired/wireless remote control unit RM-PJ1292 controls all the projector functions such as set-up adjustments and operational functions •Various optional accessories available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 90-inch to 300-inch in size with simple adjustments

VPH-1292QM

VPH-1292QMG

Supplied accessories:
Interface board: IFB-11
Wired/wireless remote control unit: RM-PJ1292
Remote control cable for RM-PJ1292 (15m)
AA size battery (for RM-PJ1292) × 3
Hexagon wrench
AC power cord
Operation manual

Optional accessories:
Interface board:
IFB-11/20/30/101/1000/1200/1300/3000*3
Signal interface switcher: PC-1271M
Interface unit: IFU-1271M
Signal interface cables: SIC-10/20A/20B/20C/21/22/30
Multi-cable*4:
CCQ-BRS cable (14-14pin: 2/5/10/25/50m)
SIC-M cable (14-14pin: 1/5/15/25/50m)
Infrared remote control unit: RM-1270S
Infrared remote control receiver: RM-PJ10
Projection lens: VPHL-9270
Suspension support: PSS-10/1270
100-inch flat screen*4: VPS-100FH
120-inch flat screen*4: VPS-120FH

## Specification

**General**

Video signal system: CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system: PAL/NTSC/SECAM/NTSC4.43 automatically selected
Brightness: ANSI*1: 225lm (fH: 135kHz, fV: 50Hz)
130lm (fH: 15kHz, fV: 60Hz)
Colour temperature: 6500°K
Peak white: 1000lm
All white: 300lm
RGB bandwidth: 120MHz (-3dB)
Resolution: 700TV lines (video)
2000 × 1600 pixels
(RGB, measured at fH: 94kHz, fV: 60Hz)
Scanning frequency: Horizontal: 15 to 135kHz
Vertical: 38 to 150Hz

Test signals: Cross hair, Hatch (coarse), Hatch, Hatch (invert), Dot pattern, Window, H pattern, H pattern (invert), All white, Pluge
Power requirements: AC 220 to 240V, 50/60Hz
Power consumption: Max. 850W
Heat dissipation: 2900.6BTU
Mass: 92kg (202 lb 13 oz)
Operating temperature: 0 to 40° C (14 to 104°F)
Operating humidity: 35 to 85%

**Inputs**

Video:
Composite*4: Loop-through BNC
(For VPH-1292QM) 1Vp-p, sync negative, Automatic 75Ω termination*6
Y/C*4: Mini DIN 4-pin
(For VPH-1292QM) Y (luminance): 1Vp-p, sync negative, 75Ω
C (chrominance): 0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω

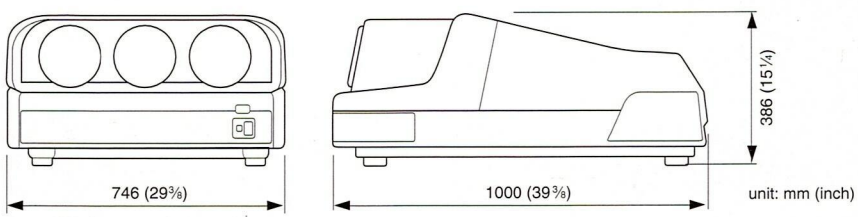
Input A: (supplied with an IFB-11)
R/B: BNC
0.7Vp-p, 75Ω
G/Sync on G: BNC
Non-composite 0.7Vp-p, 75Ω,
Composite 1Vp-p, sync negative, 75Ω
Sync: Composite sync: BNC
Analogue level:
0.6 to 8Vp-p, high impedance, positive/negative
TTL level:
Positive/negative
HD/VD separate: BNC
Analogue level:
0.6 to 8Vp-p, high impedance, positive/negative
TTL level:
Positive/negative
Audio: not applicable

Input B: (open for an optional IFB series input module)
Control S: Loop-through Mini jack
Remote 1: 14-pin (from the PC-1271M)

**Outputs**

Remote 2: D sub 9-pin (RS-422 port)

**Dimensions**




*1 ANSI is a measuring method of American National Standard ANSI IT7.215.
*2 Applicable for VPH-1292QM only.
*3 The IFB-3000 should be installed in the PC-1271M.
*4 Some items are not available in some areas. For details, please consult your nearest Sony office.
*5 The Y/C input has priority over the Video input.
*6 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## VPH-1272QM (PAL/NTSC/SECAM/NTSC4.43)

•Multiscan capability: horizontal 15 to 93kHz, vertical 38 to 150Hz •New CRT assures high resolution of 1500 × 1200 pixels (RGB IN, at fH:74kHz, fV:60Hz) •Remarkable light output of 700 lm (peak white), 200 lm (all white) •Wide RGB bandwidth of 70MHz •Registration adjustment at 21 points on the screen for accurate registration •Double scan capability (when used with PC-1271M with IFB-3000 installed) •Responds to both Analogue/Digital RGB signals •Colour temperature selection: 9300K/6500K/3200K/User Preset •Supplied wired/wireless remote control unit RM-PJ1292 controls all projector functions such as set up adjustments and operational functions •Various optional IFB series interface boards, IFU interface unit, SIC series signal interface cables and PC-1271M signal interface switcher available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 70-inch to 300-inch in size with simple adjustments

Supplied accessories:
- Interface board IFB-11
- Remote commander RM-PJ1292
- Remote control cable (15m)
- Lens spacer (×2)
- CRT spacer (×2)
- Washers (12 pcs each for 4 types; T=0.4/0.5/1.0/1.2mm)
- AA size battery × 3 (for RM-PJ1292)
- AC power cord
- Operation manual

Optional accessories:
- Interface board: IFB-11/20/30/101/1000/1200/1300/3000*1
- Signal interface switcher: PC-1271M
- Interface unit: IFU-1271M
- Signal interface cable: SIC-10/20A/20B/20C/21/22/30
- Infrared remote control unit: RM-1270S (Supplied with PC-1271M)
- Remote control receiver: RM-PJ10
- Suspension support: PSS-10/1272
- Flat screen: 100-inch: VPS-100FH, 120-inch: VPS-120FH
- Curved screen: 72-inch: VPS-72HG1, 100-inch: VPS-100HG1
- Rear screen: 70-inch: VPS-702R
- Rear screen frame: VPF-701R
- Multi cable*2: CCQ-BRS cable (14-14-pin, 2/5/10/25/50m) SIC-M cable (14-14-pin, 1/5/15/25/50m)

## Specification

**General**

Video signal system: CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)

Colour system: PAL, NTSC, SECAM, NTSC4.43*3 (automatically selected)

Picture tube: New 7-inch (6.2-inch V) liquid cooled high brightness monochrome tubes with pure filter

Projection lens: High performance HACC multicoating lenses, F 1.06/140mm

Brightness: ANSI*4: 145lm (fH: 93kHz, fV: 50Hz) 130lm (fH: 15kHz, fV: 60Hz) Colour temperature: 6500°K
Peak white: 700lm
All white: 200lm

Scanning frequency: Horizontal: 15 to 93kHz
Vertical: 38 to 150Hz

Horizontal resolution: 700TV lines (VIDEO IN)
1500 × 1200 pixels
(RGB IN, measured at fH:74kHz, fV:60Hz)

Speaker: Monaural, 3W max.

Power requirements: AC 220 to 240V, 50/60Hz

Power consumption: 540W max.

Mass: 64kg (141 lb 1.5 oz)

**Inputs**

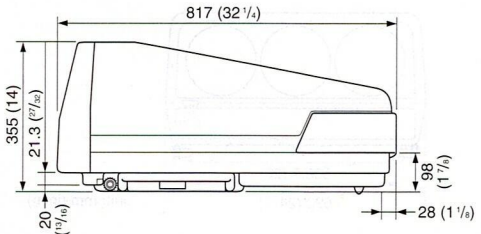
Video
- Composite*5: Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination*6
- Y/C *5: Mini DIN 4-pin, Y(luminance): 1Vp-p, sync negative, 75Ω, C(chrominance): 0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω

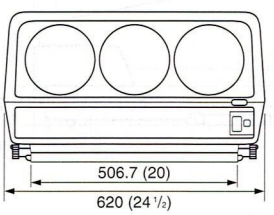
Audio: Phono, -5dBu, impedance more than 47kΩ

Input A (Supplied with IFB-11)
- R/B: BNC, 0.7Vp-p, positive, 75Ω
- G/Sync on G: BNC, 0.7Vp-p, positive, 75Ω (Non-composite), 1Vp-p, sync negative, 75Ω (Composite)
- Sync: Composite sync: BNC, Analogue level: 0.6 to 8Vp-p, high impedance, positive/negative, TL level: positive/negative; HD/VD separate: BNC, Analogue level: 0.6 to 0.8Vp-p, high impedance, positive/negative, TTL level: positive/negative
- Audio: Phono, -5dBu, impedance more than 47kΩ, stereo or monaural selectable

Input B (Open for optional interface board)

**Dimensions**




unit: mm (inch)

*1 The IFB-3000 should be installed in the PC-1271M.
*2 These cables are not available in some areas. For details, please consult your nearest Sony office.
*3 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*4 ANSI is a measuring method of American National standard ANSI IT7.215.
*5 The Y/C input has priority over the Composite video input.
*6 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## VPH-1252QM (PAL/NTSC/SECAM/NTSC4.43)

•Multiscan capability: horizontal 15 to 61.5kHz, vertical 38 to 150Hz •New CRT assures high resolution of 1500 × 1200 pixel (RGB IN, at fH:47kHz, fV:38Hz) •Remarkable light output of 700 lm (peak white), 200 lm (all white) •Double scan capability (when used with PC-1271M with IFB-3000 installed) •Responds to both Analogue/Digital RGB signals •Colour temperature selection: 9300K/6500K/3200K/User Preset •Supplied wired/wireless remote control unit RM-PJ1292 controls all projector functions such as set up adjustments and operational functions •Various optional IFB series interface boards, IFU-1271M interface unit, SIC series signal interface cables and PC-1271M signal interface switcher available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 70-inch to 300-inch in size with simple adjustments

Supplied accessories:
- Interface board IFB-11
- Remote commander RM-PJ1292
- Remote control cable (15m)
- Lens spacer (×2)
- CRT spacer (×2)
- Washers (12 pcs each for 4 types; T=0.4/0.5/1.0/1.2mm)
- AA size battery ×3 (for RM-PJ1292)
- AC power cord
- Operation manual

Optional accessories:
- Interface board IFB-11/20/30/101/1000/1200/1300/3000*1
- Signal interface switcher: PC-1271M
- Interface unit: IFU-1271M
- Signal interface cable: SIC-10/20A/20B/20C/21/22/30
- Infrared remote control unit: RM-1270S (Supplied with PC-1271M)
- Remote control receiver: RM-PJ10
- Suspension support: PSS-10/1272
- Flat screen: 100-inch: VPS-100FH
  120-inch: VPS-120FH
- Curved screen: 72-inch: VPS-72HG1
  100-inch: VPS-100HG1
- Rear screen: 70-inch: VPS-702R
- Rear screen frame: VPF-701R
- Multi cable*2: CCQ-BRS cable (14-14-pin, 2/5/10/25/50m)
  SIC-M cable (14-14-pin, 1/5/15/25/50m)

### Specification

**General**

Video signal system: CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)

Colour system: PAL/NTSC/SECAM/NTSC4.43*3 (automatically selected)

Picture tube: New 7-inch (6.2-inch V) liquid cooled high brightness monochrome tubes with pure filter

Projection lens: High performance HACC multicoating lenses, F 1.06/140mm

Brightness: ANSI*4: 145lm (fH: 93kHz, fV: 50Hz)
130lm (fH: 15kHz, fV: 60Hz)
Colour temperature: 6500°K
Peak white: 700lm
All white: 200lm

Resolution: 700TV lines (VIDEO IN)
1500 × 1200 pixels
(RGB IN, measured at fH:47kHz, fV:38Hz)

Scanning frequency: Horizontal: 15 to 61.5kHz
Vertical: 38 to 150Hz

Speaker: Monaural, 3W max.

Power requirements: AC 220 to 240V, 50/60Hz

Power consumption: 500W max.

Mass: 63kg (138 lb 14.2 oz)

**Inputs**

Video

Composite*5: Loop-through BNC
1Vp-p, sync negative, Automatic
75Ω termination*6

Y/C *5: Mini DIN 4-pin
Y(luminance): 1Vp-p, sync negative, 75Ω
C(chrominance): 0.3Vp-p (PAL),
0.286Vp-p (NTSC), 75Ω

Audio: Phono
-5dBu, monaural, impedance more than 47kΩ

Input A (Supplied with IFB-11)

R/B: BNC, 0.7Vp-p, positive, 75Ω

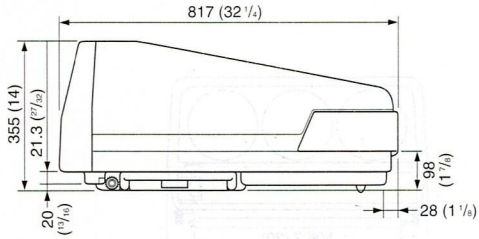
G/Sync on G: BNC, 0.7Vp-p, positive, 75Ω (Non-composite)
1Vp-p, sync negative, 75Ω (Composite)

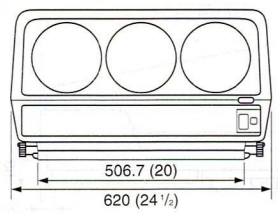
Sync: Composite sync: BNC
Analogue level:
0.6 to 8Vp-p, high impedance, positive/negative
TTL level:
positive/negative
HD/VD separate: BNC
Analogue level:
0.6 to 0.8Vp-p, high impedance, positive/negative
TTL level:
positive/negative

Audio: Phono
-5dBu, impedance more than 47kΩ, stereo or monaural selectable

Input B (Open for optional interface board)

**Dimensions**



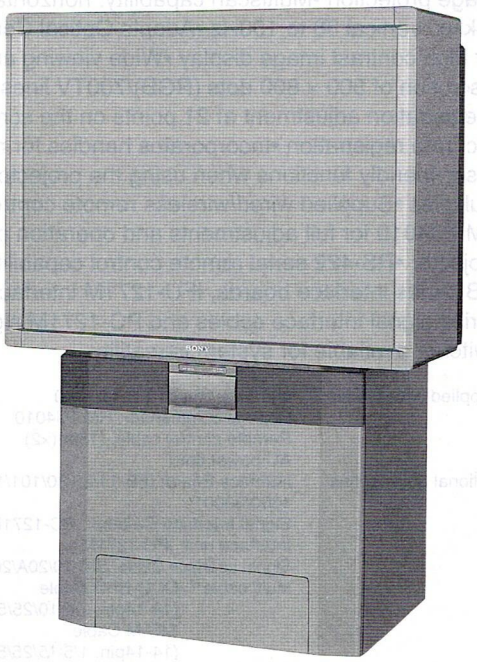

unit: mm (inch)

*1 The IFB-3000 should be installed in the PC-1271M.
*2 These cables are not available in some areas. For details, please consult your nearest Sony office.
*3 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*4 ANSI is a measuring method of American National Standard ANSI IT7.215.
*5 The Y/C input has priority over the Composite video input
*6 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

# RVP-6010QM (PAL/NTSC/SECAM/NTSC4.43)

•60-inch multiscan rear projection unit •Multiscan capability: horizontal 15 to 93kHz, vertical 38 to 150Hz •High contrast images with Optical Coupling CRT •Employs a two-layer screen (Lenticular/Fresnel) for a wide vertical viewing angle •A high resolution of 1400 × 1120 pixels (RGB input)/700TV lines (Composite video input) •Heavy duty casters with brakes for high mobility •Supplied wired/wireless remote control RM-PJ1292 for full adjustments and operation of the projector •Optional IFB series interface boards, IFU-1271M interface unit, the SIC series signal interface cables and the PC-1271M signal interface switcher expands the system versatility

MULTISCAN



Supplied accessories:
- Interface board IFB-11
- Remote commander RM-PJ1292
- Remote control cable (15m)
- Extension board
- AC power cord

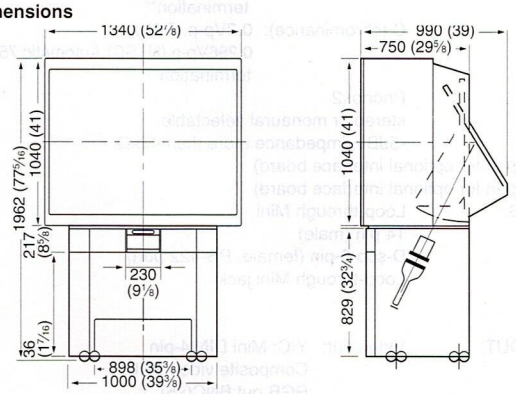
Optional accessories:
- Interface Board: IFB-11/20/30/101/1000/1200/1300/3000*1
- Signal interface switcher: PC-1271M
- Interface unit: IFU-1271M
- Signal interface cables: SIC-10/20A/20B/20C/21/22/30
- Multi cable*2: CCQ-BRS cables (14-14pin, 2/5/10/25/50m)
- SIC-M cable (14-14pin, 1/5/15/25/50m)
- Infrared remote control unit RM-1270S (Supplied with PC-1271M)
- Remote control receiver RM-PJ10

## Specifications

### General

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*3 (automatically selected) |
| Picture tube: | 7-inch (6.2 inch V) high-luminance monochrome optical coupled with coolant sealed |
| Projection lens: | New High performance multi-coated HACC lens, F1.1/116mm |
| Projection picture size: | 60-inch: 1219(W) × 914(H)mm (4.0 × 3.0 ft) |
| Screen: | Black stripe two-layer (lenticular/ fresnel) |
| Brightness: | ANSI*4: 100cd/m2 (100nits) (fH: 93kHz, fV: 50Hz)<br>90cd/m2 (90nits) (fH: 15kHz, fV: 60Hz)<br>Colour temperature: 6500°K<br>Peak white: 150ft-L (514cd/m2)<br>All white: 40ft-L (137cd/m2) |
| Contrast ratio: | 70:1 |
| Viewing angle: | Horizontal: ±57°<br>Vertical: ±30° |
| Scanning frequency: | Horizontal: 15 to 93kHz<br>Vertical: 38 to 150Hz |

### Dimensions




Unit: mm (inch)

| | |
|---|---|
| Resolution: | 700TV lines (VIDEO IN)<br>1400 × 1120 pixels (RGB in, measured at fH: 69kHz, fV: 60Hz) |
| Speakers: | Max. 10W+10W, stereo |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 680W max. |
| Mass: | 200kg (440 lb 15 oz) |

### Input

Video

| | |
|---|---|
| Composite*5 | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*6 |
| Y/C*5 | Mini DIN 4-pin<br>Y (Luminance signal): 1Vp-p, sync negative, 75Ω<br>C (Chrominance signal): 0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω |
| Audio | Phono<br>-5dBu, impedance more than 47kΩ |

INPUT A:(Supplied with IFB-11)

| | |
|---|---|
| R/B: | BNC 0.7Vp-p, positive, 75Ω |
| G/sync on G: | BNC 0.7Vp-p, positive, 75Ω (Non-composite) or 1Vp-p, sync negative, 75Ω (Composite) |
| Sync: | Composite sync: BNC<br>Analogue level:<br>0.6 to 8Vp-p, high impedance, positive/negative<br>TTL level:<br>positive/negative<br>HD/VD separate: BNC<br>Analogue level:<br>0.6 to 8Vp-p, high impedance, positive/negative<br>TTL level:<br>positive/negative |
| Audio: | Phono:<br>-5dBu, impedance more than 47kΩ<br>stereo or monaural selectable |

INPUT B:(Open for optional interface board)

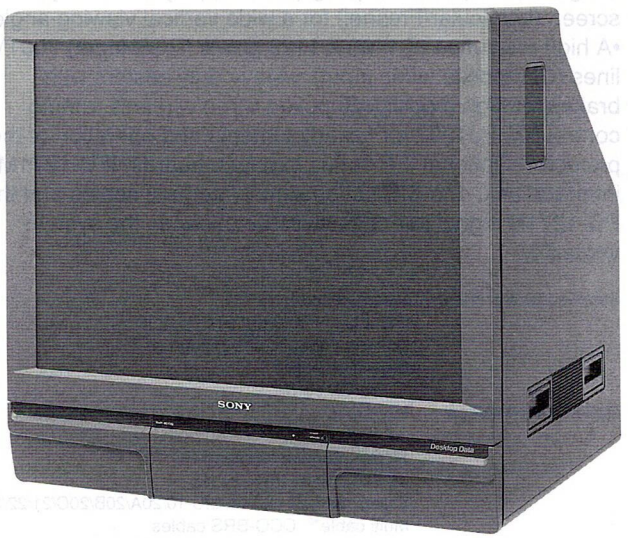
*1 The IFB-3000 should be installed in the PC-1271M.
*2 These cables are not available in some areas. For details, please consult your nearest Sony office.
*3 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*4 The Y/C input has priority over the Composite video input.
*5 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

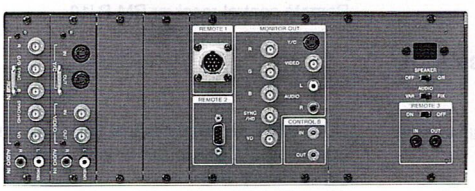
# RVP-4015QM (PAL/NTSC/SECAM/NTSC4.43)

•40-inch multiscan rear projector unit for extremely bright image projection •Multiscan capability: horizontal 15 to 85kHz, vertical 38 to 150Hz •Adopts Optical Coupling CRT for high contrast image display •Wide viewing angle •A high resolution of 800 × 800 dots (RGB)/700TV lines (composite) •Registration adjustment at 21 points on the screen for accurate registration •Incorporates handles for mobility •User-friendly functions when using the projector alone or in multiples •Supplied wired/wireless remote control RM-PJ4010 for full adjustments and operation of the projector •RS-422 serial remote control capability •Optional IFB series interface boards, IFU-1271M interface unit, SIC series signal interface cables and PC-1271M signal interface switcher available for system versatility

Supplied accessories: Interface board: IFB-11/1000
Remote commander: RM-PJ4010
Remote control cable: (15m)(×2)
AC power cord

Optional accessories: Interface Board: IFB-11/20/30/101/1000/1200/1300/3000*1
Signal Interface Switcher: PC-1271M
Interface unit: IFU-1271M
Signal Interface Cable: SIC-10/20A/20B/20C/21/22/30
Multi cable*2: CCQ-BRS Cable (14-14pin, 2/5/10/25/50m)
SIC-M Cable (14-14pin, 1/5/15/25/50m)



## Specifications

**General**

Video signal system: CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system: PAL/NTSC/SECAM/NTSC4.43*3 (automatically selected)
Picture tube: 7-inch (5.5V) high luminance monochrome optical coupled with coolant sealed
Projector lens: High performance multi-coated HACC lens, F1.0/96mm
Projection picture size: 40-inch: 813(W) × 610(H)mm(2.7 × 2ft)
Screen: 0.78mm pitch, Black stripe, (lenticular/fresnel/non-glare (cytop)
Brightness: ANSI*4: 73cd/m2 (73nits) (fH: 85kHz, fV: 50Hz)
64cd/m2 (64nits) (fH: 15kHz, fV: 60Hz)
Colour temperature: 6500°K
Peak white: 100ft-L (343cd/m²)
All white: 25ft-L (86cd/m²)
Viewing angle: Horizontal: ±80°
Vertical: ±60°
Scanning frequency: Horizontal: 15 to 85kHz
Vertical 38 to 150Hz
Horizontal Resolution: 700 TV lines (VIDEO IN)
800 × 800 pixels
(RGB in measured at fH: 50kHz, fV: 60Hz)
Speakers: Max. 5W + 5W, stereo
Power requirements: AC 220 to 240V, 50/60Hz
Power consumption: 590W max.
Heat dissipation 2013.4BTU
Mass: 96kg (211 lb 10 oz)
Operating temperature: 0 to 40(C (14 to 104(F)
Operating humidity: 35 to 80%
Dimensions: 931(W) × 874(H) × 752(D)mm
(36 3/4 × 34 1/2 × 29 5/8inches)

**Inputs**

INPUT A: (supplied with IFB-11)
R/B: BNC, 0.7Vp-p, 75Ω
G/Sync on G: BNC,1Vp-p sync negative,75Ω
(Composite)or 0.7Vp-p, 75Ω (Non-composite)
Sync: Composite sync: BNC
Analogue level: 0.6 to 8Vp-p,high impedance, positive/negative
TTL level; positive/negative
HD/VD separate: BNC
Analogue level: 0.6 to 8Vp-p, high impedance, positive/negative
TTL level; positive/negative
Audio: Phono(×2) (stereo or monaural selectable)
-5dBu, impedance more than 47kΩ

INPUT B: (supplied with IFB-1000)
VIDEO*5: Loop-through BNC
1Vp-p, sync negative, Automatic 75Ω termination*6
Y/C*5: Loop-through 4-pin mini DIN
Y (luminance): sync negative, Automatic 75Ω termination*6
C (chrominance): 0.3Vp-p (PAL), 0.286Vp-p (NTSC),Automatic 75Ω termination*6
AUDIO: Phono×2
stereo or monaural selectable
-5dBu, impedance more than 47kΩ

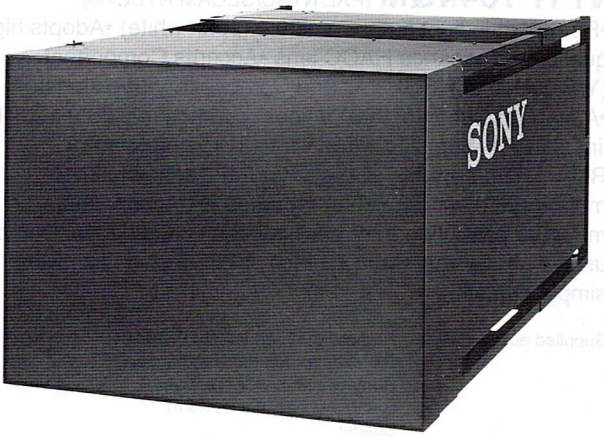
INPUT C:(Open for optional interface board)
INPUT D:(Open for optional interface board)
CONTROL S: Loop-through Mini
REMOTE 1: 14 pin (male)
REMOTE 2: D-sub 9-pin (female, RS-422 port)
REMOTE 3: Loop-through Mini jack

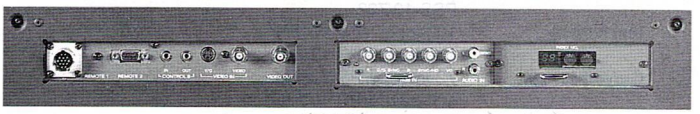
Outputs
MONITOR OUT: Video out: Y/C: Mini DIN 4-pin
Composite video:BNC
RGB out:BNC(×5)
Audio out: Phono( × 2) (VAR/FIX)

*1 IFB-11/1000 are supplied. IFB-3000 occupies four slots.
*2 These cables are not available in some areas. For details, please consult your nearest Sony office.
*3 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*4 ANSI is a measuring method of American National Standard ANSI IT7.215.
*5 The Y/C input has priority over the VIDEO input.
*6 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## RVP-401QM (PAL/NTSC/SECAM/NTSC4.43)

•Suitable for both a multi-screen display and a stand-alone 40-inch projection •Multiscan capability: horizontal 15 to 50kHz, vertical 38 to 150Hz •High resolution of more than 640 × 480 pixels (RGB, measured at fH: 50kHz)/700TV lines (composite video) •Adopts Optical Coupling CRT for high contrast image display •Up to 4 units can be stacked vertically •Wide viewing angle: horizontal 160°, vertical 60° •Colour temperature selection: 3200K/6500K/9300K/User preset •Automatic power on with the external power feed and presentable delay time for power on •Optional IFB series interface boards, SIC series signal interface cables, and PC-1271M signal interface switcher and IFU-1271M interface unit available for system versatility •Optional wired/wireless remote commander RM-1271 with address function for all projector control functions, including input selection, picture control, RGB size and shift and centering controls



| | |
|---|---|
| Supplied accessories: | Interface board IFB-11/101<br>Control S connecting cable (1m(3 ft 3 inches))<br>Extension board<br>AC power cord<br>Operation Manual |
| Optional accessories: | Remote commander RM-PJ1292, RM-1271<br>Remote control receiver RM-PJ10<br>AC adaptor (for RM-PJ10): AC-E60M<br>Interface board IFB-11/20/30/101/1000/1200/1300/3000<br>Signal interface switcher PC-1271M<br>Interface unit: IFU-1271M<br>Signal interface cable SIC-10/20A/20B/20C/21/22/30<br>Multi cable*1: CCQ-BRS cable (14-14pin, 2/5/10/25/50m)<br>SIC-M cable (14-14pin, 1/5/15/25/50m) |

### Specifications

**General**

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*2 (automatically selected) |
| Picture tube: | 7-inch (5.5 V) high-luminance monochrome optical coupled, with sealed coolant |
| Projection lens: | High performance HACC lens, F1.0/96mm |
| Projection picture size: | 40-inch: 813(W) × 610(H)mm (2.7 × 2 ft) |
| Screen: | Two-layered (lenticular and thin film fresnel) |
| Brightness: | ANSI*3: 325cd/m²(325nits) (fH: 50kHz, fV: 50Hz)<br>300cd/m²(300nits) (fH: 15kHz, fV: 60Hz)<br>Colour temperature: 6500(K<br>Peak white: 700 ft-L(2400cd/m2)<br>All white: 150 ft-L(514cd/m2) |
| Contrast ratio: | 100:1 |
| Viewing angle: | Horizontal: 160°, Vertical: 60° |
| Scanning frequency: | Horizontal: 15 to 50kHz<br>Vertical: 38 to 150Hz |
| Resolution: | 700TV lines (VIDEO IN)<br>640 × 480 pixels (RGB in, measured at fH: 50kHz) |
| Power requirements: | AC 220 to 240V, 50/60 Hz |
| Power consumption: | 340W max. (VIDEO IN), 395W max. (RGB in) |
| Mass: | 105kg (231 lb) |

**Input**

Video

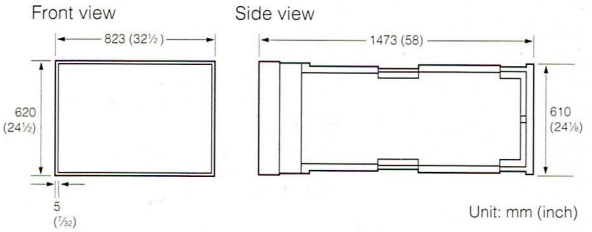
| | |
|---|---|
| Video*4: | Loop-through BNC<br>1Vp-p, sync negative, Automatic 75Ω termination*5 |
| Y/C*4: | Mini DIN 4-pin<br>Y(luminance): 1Vp-p, sync negative, 75Ω<br>C(chrominance): 0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω |

INPUT A (Supplied with IFB-11)

| | |
|---|---|
| R/B: | BNC<br>0.7Vp-p, positive, 75Ω |
| G/Sync on G: | BNC<br>0.7Vp-p, positive, 75Ω (Non-composite)<br>1.0Vp-p, sync negative, 75Ω (Composite) |
| Sync: | Composite sync: BNC<br>Analogue level: 0.6 to 8Vp-p, high impedance, positive/negative<br>TTL level: positive/negative<br>HD/VD separate: BNC<br>Analogue level: 0.6 to 8Vp-p, high impedance, positive/negative<br>TTL level: positive/negative |
| Audio | Phono<br>-5dBu, impedance more than 47kΩ |

INPUT B (Supplied with IFB-101)

**Dimensions**




*1 These cables are not available in some areas. For details, please consult your nearest Sony office.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 ANSI is a measuring method of American National Standard ANSI IT7.215.
*4 The Y/C input has priority over the Composite video input.
*5 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

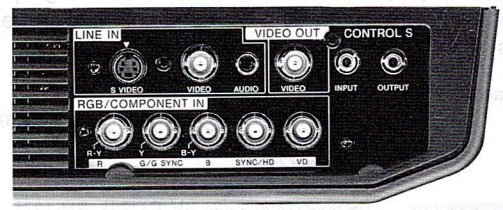
## VPH-1044QM (PAL/NTSC/SECAM/NTSC4.43)

•Remarkable light output of 700lm(peak white) •Adopts high quality performance HACC lens •Accepts Component (Y/R-Y/B-Y or RGB), Y/C and Composite Video signals •A high resolution of 700TV lines (composite video)/1000TV lines(RGB) •Supplied wired/wireless remote control unit RM-PJ1044 controls all projector functions •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with a screen from 70-inch to 250-inch in size with simple adjustment

Supplied accessories:
- Remote commander RM-PJ1044
- Batteries for remote commander
- Remote commander receiver
- Remote control cable(1.5m)
- Spacer
- AC power cord

Optional accessories:
- Projector pedestal: SU-722
- Projector suspension support: PSS-10/722
- Flat screen: 100-inch: VPS-100FH; 120-inch: VPS-120FH
- Curved screen: 72-inch: VPS-72HG1; 100-inch: VPS-100HG1
- Rear screen: 70-inch: VPS-702R
- Rear screen frame: VPF-701R
- VPE/VPL/VPM series for 150 to 250-inch projection
- Carrying case: VLC-1040

## Super Bright




### Specifications

**General**

- Video signal system: CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
- Colour system: PAL/NTSC/SECAM/NTSC4.43*1 (automatically selected)
- Picture tube: 7-inch(5.5-inch V) liquid cooled high brightness monochrome tube
- Projection lens: HACC(High-resolution Aspherical and Colour Corrected) lens F1.0/135mm
- Brightness: ANSI*2: 100lm (fH: 15.75kHz, fV: 60Hz) Colour temperature: 6500°K; Peak white: 700lm; All white: 140lm
- Resolution: 700TV lines(VIDEO IN), 1000TV lines(RGB IN)
- Speaker: Monaural, 3W max
- Power requirements: AC 220 to 240V, 50/60Hz
- Power consumption: 210W max.
- Mass: 38kg(83 lb 12 oz)

**Inputs**

Line
- Composite*3: Loop-through BNC; 1.0Vp-p, sync negative, Automatic 75Ω termination*4
- Y/C(S video)*3: Mini DIN 4-pin
- Audio: Phono; -5dBu, high impedance

RGB/Component
- R-Y/R: BNC; 0.7Vp-p, positive, 75Ω
- Y/G/Sync on G: BNC; 0.7Vp-p, positive, 75Ω(Non-composite); 1.0Vp-p, sync negative, 75Ω(Composite)
- B-Y/B: BNC; 0.7Vp-p, positive, 75Ω
- Sync: Composite sync: BNC; Analogue level: 0.6 to 8Vp-p, high impedance, positive/negative; TTL level: positive/negative; HD/VD separate: BNC; Analogue level: 0.6 to 8Vp-p, high impedance,positive/negative; TTL level: positive/negative
- Control S: Loop-through Mini jack

*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 ANSI is a measuring method of American National Standard ANSI IT7.215.
*3 S VIDEO input has priority over Composite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## VPH-1001QM (PAL/NTSC/SECAM/NTSC4.43)

•Remarkable light output of 700lm •A high resolution of 700TV lines •Y/C input •Supplied wired/wireless remote control unit RM-PJ1044 controls all projector functions such as set up adjustments and operational functions •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with a screen from 70-inch to 250-inch in size with simple adjustment

Supplied accessories:
- Remote commander RM-PJ1044
- Batteries for remote commander
- Remote commander receiver
- Remote control cable(1.5m)
- Spacer
- AC power cord

Optional accessories:
- Projector pedestal: SU-722
- Projector suspension support: PSS-10/722
- Flat screen: 100-inch: VPS-100FH; 120-inch: VPS-120FH
- Curved screen: 72-inch: VPS-72HG1; 100-inch: VPS-100HG1
- Rear screen: 70-inch: VPS-702R
- Rear screen frame: VPF-701R
- VPE/VPL/VPM series for 150 to 250-inch projection
- Carrying case: VLC-1040

### Specifications

**General**

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switcing of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*1 (automatically selected) |
| Picture tube: | Liquid cooled high brightness monochrome tube |
| Projection lens: | 7-inch(5.5-inch V) High performance hybrid multi-coating lens F1.0/130mm |
| Brightness: | ANSI*2: 100lm (fH: 15.75kHz, fV: 60Hz) Colour temperature: 6500°K<br>Peak white: 700lm<br>All white: 140lm |
| Resolution: | 700TV lines |
| Audio power output: | Monaural, 3W max |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 210W |
| Mass: | 30kg(66 lb 2 oz) |

**Input**

Line

| | |
|---|---|
| Composite*3: | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*4 |
| Y/C(S video)*3: | Mini DIN 4-pin<br>Y(luminance): 1.0Vp-p, sync negative, 75Ω<br>C(chrominance): 0.3Vp-p(PAL), 75Ω<br>0.286Vp-p(NTSC), 75Ω |
| Audio: | Phono<br>-5dBu, high impedance |
| Control S: | Loop-through Mini jack |

*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 ANSI is a measuring method of American National Standard ANSI IT7.215.
*3 S VIDEO input has priority over Composite video input
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

# VPL-V500QM (PAL/NTSC/SECAM/NTSC4.43/PAL-M)

## LCD Data Projector

•LCD (Liquid Crystal Display)-based video projector •Three p-Si TFT LCD panels for a total of 921,600 pixels (307,200 pixels × 3 panels) •250W metal halide lamp incorporated •A high light output of 500 ANSI lumen*1 •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Accepts VGA, Macintosh 13-inch mode and SVGA*2 mode other from video signals •Light in weight and compact design for easier handling •On-screen menu with a choice of seven languages for adjustment/operation •Supplied wired/wireless remote commander RM-PJM500 controls all the projector functions such as set-up adjustments and operational functions •Mouse function operation for remote control of the connected computer source •Desk top mounted projection and ceilings mounted projection capabilities •Can be used with screens from 40 to 300-inch in size •Reproduced images can be viewed without any disturbance of the projector, thanks to the optical design which enables the projector to be installed lower in comparison to the screen •Power saving mode available

| | |
|---|---|
| Supplied accessories: | Remote commander RM-PJM500<br>Mouse receiver RM-PJ20<br>HD D-sub 15-pin (male) to<br>HD D-sub 15-pin (male) cable<br>VGA-Macintosh adapter<br>Size AA (R6) battery (×2)<br>AC power cord<br>Operating instructions |
| Optional accessories: | Signal Interface cable SIC-20A/20B/20C/21/22<br>Remote control receiver RM-PJ10<br>Projector lamp (for replacement) PK-PJ500*3<br>Projection lens VPLL-FM100<br>Carrying case VLC-500<br>Suspension support PSS-500<br>Signal adapter ADP-10<br>(HD D-sub 15-pin to D-sub 9-pin for SIC Cable)<br>HD D-sub 15-pin to 5 BNC cable SMF-400<br>100-inch flat screen VPS-100FH*3<br>120-inch flat screen VPS-120FH*3 |

## Specifications

### Optical

| | |
|---|---|
| Projection system: | 3 LCD panels, 1 lens, projection<br>1.3-inch p-Si TFT LCD panel, 921,600 pixels<br>(307,200 pixels × 3 panels) |
| Projection lens: | 1.6 times zoom lens<br>f50 to 80 mm/F2.5 to 3.1 |
| Lamp: | 250W metal halide lamp |
| Screen coverage: | 40 to 300-inch |
| Light output: | ANSI *1: 500lm |
| Throwing distance: | 41-inch: 1490 to 2290mm (58¾ to 90¼ inches)<br>80-inch: 3090 to 4710mm (121¾ to 185½ inches)<br>100-inch: 3880 to 5910mm (152⅞ to 232¾ inches)<br>120-inch: 4680 to 7120mm (184⅜ to 280⅜ inches)<br>200-inch: 7860 to 11940mm (309½ to 470⅛ inches)<br>300-inch: 11820 to 17960mm (465⅜ to 707⅛ inches) |

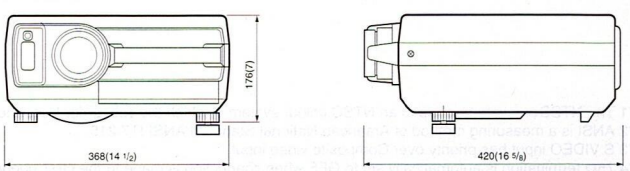
### General

| | |
|---|---|
| Colour system: | PAL/NTSC/SECAM/NTSC4.43/PAL-M automatically selected |
| Resolution: | Video: 500TV lines<br>RGB: 640 × 480 pixels |
| Compatible signals | 15k RGB/Component (NTSC)<br>fH: 15.734kHz, fV: 59.94Hz<br>15k RGB/Component (PAL/SECAM)<br>fH: 15.625kHz, fV: 50.0Hz<br>VGA mode 1 (640 × 350 dots)<br>fH: 31.468kHz, fV: 70.086Hz<br>VGA mode 2 (TEXT 640 × 400 dots)<br>fH: 31.468kHz, fV: 70.086Hz<br>VGA mode 3 (GRAPHICS 640 × 480 dots)<br>fH: 31.468kHz, fV: 59.94Hz<br>VESA 72Hz (640 × 480 dots)<br>fH: 37.86kHz, fV: 72.809Hz<br>Macintosh 13-inch mode<br>fH: 35.0kHz, fV: 66.667Hz<br>S VGA VESA 56Hz (800 × 600 dots)*2<br>fH: 35.156kHz, fV: 56.25Hz<br>S VGA VESA 60Hz (800 × 600 dots)*2<br>fH: 37.879kHz, fV: 60.32Hz |
| Horizontal frequency range of computer input: | RGB: 15kHz (S on G/Composite Sync)<br>24 to 40kHz |
| Speakers: | Max. 2W+2W, 7 × 4cm stereo |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Max.: 350W, Stand by: 10W |
| Heat dissipation: | 1194.4BTU |
| Mass: | Approx. 10kg (22 lb) |
| Operating temperature: | 0 to 40°C(32 to 104°F) |
| Operating humidity: | 35 to 85% |
| Storage temperature: | -20 to 60°C (-4 to 140°F) |
| Storage humidity: | 10 to 90% |

### Inputs/Outputs

| | | |
|---|---|---|
| VIDEO IN: | | |
| Composite video: | BNC<br>1Vp-p 2dB sync negative, 75Ω | |
| S video: Mini DIN 4-pin | Y (luminance): 1Vp-p ±2dB sync negative, 75Ω<br>C (chrominance): 0.3Vp-p 2dB (PAL), 75Ω<br>Burst 0.286Vp-p ±2dB (NTSC), 75Ω | |
| Audio IN: | Phono (×2)<br>500mVrms, stereo, impedance more than 47kΩ | |
| INPUT A: | | |
| Analogue RGB/Component: | HD D-sub 15-pin (Female) | |
| R/R-Y: | 0.7Vp-p ±2dB positive, 75Ω | |
| G: | 0.7Vp-p ±2dB positive, 75Ω | |
| G with sync/Y: | 1Vp-p ±2dB sync negative, 75Ω | |
| B/B-Y: | 0.7Vp-p ±2dB positive, 75Ω | |
| Sync/HD | Composite sync: | 0.6 to 8Vp-p, high impedance, sync positive/negative |
| | Horizontal sync: | 0.6 to 8Vp-p, high impedance, sync positive/negative |
| VD: | Vertical sync: | 0.6 to 8Vp-p, high impedance, sync positive/negative |
| Audio IN: | Phono (×2)<br>Stereo, 500mVrms, impedance more than 47kΩ | |
| AUDIO OUT: (Variable out) | Phono (×2)<br>Max. 1Vrms, when input is 500mVrms, impedance less than 5kΩ | |
| CONTROL S IN/ PLUG IN POWER: | Stereo mini jack<br>5Vp-p, Plug in power DC5V maximum output 60mA | |

### Dimensions




Unit: mm (inch)

*1 ANSI is a measuring method of American National Standard ANSI IT7.215.
*2 Compressed S VGA signal is reproduced.
*3 Some items are not available in some areas. For details, please consult your nearest Sony office.

# VPL-W400QM (PAL/NTSC/SECAM/NTSC4.43/PAL-M)

## LCD Video Projector

•LCD (Liquid Crystal Display)-based video projector •Three 16:9 p-Si TFT LCD panels for a total of more than 1,500,000 pixels (3 panels of 1,068 x 480pixels) •250W metal halide lamp incorporated •Remarkable light output of 400 ANSI lumen*1 •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Accepts component (Y/R-Y/B-Y), RGB, Y/C video, composite video and HDTV*3 signals •Signals with 4:3 aspect ratio can be presented as 4:3 or in four different 16:9 modes: full, zoom, sub title and wide zoom •Letter box signals are reproduced automatically with a 16:9 aspect ratio in the Auto wide ON mode •Quick retrieval of desired picture conditions with the memory function •On-screen menu with a choice of seven languages for adjustment/operation •Supplied wired/wireless remote commander RM-PJM500 controls major projector functions such as set-up adjustments and operational functions •Light in weight and compact design for easy handling •Desk top mounted projection and ceilings mounted projection capabilities •Can be used with screens from 41 to 300-inch in size (16:9) •Reproduced images can be viewed without any disturbance of the projector, thanks to the optical design which enables the projector to be installed lower in comparison to the screen •Power saving mode available

| | |
|---|---|
| Supplied accessories: | Remote commander RM-PJM500<br>AA (R6) size battery (×2)<br>AC power cord<br>BNC (male) to Phono (female) adapter<br>Operating instructions |
| Optional accessories: | Projector lamp (for replacement) PK-PJ500*3<br>Projection lens VPLL-FM100<br>Carrying case VLC-500<br>Suspension support PSS-500<br>Signal interface cable SIC-10 |

## Specifications

### Optical

| | |
|---|---|
| Projection system: | 3 LCD panels, 1 lens, projection<br>1.35-inch p-Si TFT LCD panel, 1,538,640pixels<br>(512,880pixels × 3 panels) |
| Projection lens: | 1.6 times zoom lens<br>f50 to 80mm/F2.5 to 3.1 |
| Lamp: | 250W DC metal halide lamp |
| Screen coverage: | 41 to 300-inch (aspect ratio: 16:9)<br>34 to 245-inch (aspect ratio: 4:3) |
| Light output: | ANSI *1: 400lm (16:9) |
| Throwing distance: | |
| <16:9> | 41-inch: 1490 to 2280mm (58¾ to 89⅞ inches)<br>80-inch: 3000 to 4570mm (118⅛ to 180 inches)<br>100-inch: 3770 to 5740mm (148½ to 226 inches)<br>120-inch: 4540 to 6910mm (178¾ to 272⅛ inches)<br>200-inch: 7640 to 11590mm (300⅞ to 456⅜ inches)<br>300-inch: 11500 to 17450mm (452⅞ to 687⅛ inches) |
| <4:3> | 34-inch: 1510 to 2320mm (59½ to 91⅜ inches)<br>80-inch: 3690 to 5620mm (145⅜ to 221⅜ inches)<br>100-inch: 4630 to 7050mm (182⅜ to 277⅝ inches)<br>120-inch: 5580 to 8480mm (219¾ to 333⅞ inches)<br>200-inch: 9370 to 14210mm (369 to 559½ inches)<br>245-inch: 11500 to 17440mm (452⅞ to 686⅝ inches) |

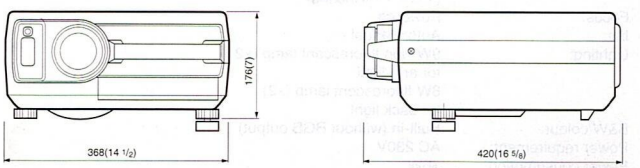
### General

| | |
|---|---|
| Colour system: | PAL/NTSC/SECAM/NTSC4.43/PAL-M automatically selected |
| Resolution: | 600TV lines |
| Speakers: | Max. 2W+2W, 7 × 4cm stereo |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Max.: 350W, Stand by: 10W |
| Heat dissipation: | 1194.4BTU |
| Mass: | Approx. 10kg (22 lb) |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Operating humidity: | 35 to 85% |
| Storage temperature: | -20 to 60°C (-4 to 140°F) |
| Storage humidity: | 10 to 90% |

### Inputs/Outputs

| | |
|---|---|
| VIDEO: | |
| Composite video: | BNC<br>1Vp-p2dB sync negative, 75Ω |
| S VIDEO: | Mini DIN 4-pin |
| Y (luminance): | 1Vp-p2dB sync negative, 75Ω |
| C (chrominance): | 0.3Vp-p2dB (PAL), 75Ω<br>Burst 0.286Vp-p 2dB (NTSC), 75Ω |
| Audio IN: | Phono (×2)<br>500mVrms, stereo, impedance more than 47kΩ |
| INPUT A | BNC × 4 |
| Analogue RGB/Component: | |
| R/R-Y: | 0.7Vp-p2dB positive, 75Ω |
| G: | 0.7Vp-p2dB positive, 75Ω |
| G with sync/Y: | 1Vp-p2dB sync negative, 75Ω |
| B/B-Y: | 0.7Vp-p2dB positive, 75Ω<br>Composite sync: 0.6 to 8Vp-p, high impedance, sync positive/negative |
| HDTV*2 (Y/PB/PR): | |
| Y: | 1Vp-p2dB, 75Ω<br>Tri-level sync: 0.3Vp-p, Bi-level sync: 0.3Vp-p<br>PB/PR:0.35Vp-p2dB, 75Ω |
| HDTV*2 (GBR): | |
| G with sync: | 1Vp-p2dB, 75Ω<br>Tri-level sync: 0.3Vp-p, Bi-level sync: 0.3Vp-p |
| B/R: | 0.7Vp-p2dB, 75Ω |
| Audio IN: | Phono (x2)<br>Stereo, 500mVrms, impedance more than 47kΩ |
| AUDIO OUT: | Phono (×2) |
| (Variable out) | Max. 1Vrms,<br>when input is 500mVrms, impedance less than 5kΩ |
| CONTROL S: | |
| IN PLUG IN POWER: | Stereo mini jack<br>5Vp-p, Plug in power DC 5V maximum output 60mA |
| OUT: | Stereo mini jack 5Vp-p |
| TRIG: | Mini jack<br>Power ON: DC 5V output impedance 4.7kΩ<br>Power OFF: 0V |

### Dimensions




Unit: mm (inch)

*1 ANSI is a measuring method of American National Standard ANSI IT7.215.
*2 HDTV: 1125/60 interlaced HDTV studio standard system.
*3 PK-PJ500 is not available in some areas. For details, please consult your nearest Sony office.

DISPLAY PRODUCTS

# VID-P100

## Video presentation stand

•Three-dimensional objects just as well as flat objects such as chart, drawings, books etc. can be displayed on TV monitors and projectors •420 TV lines resolution for superb picture quality •Built-in microphone amplifier with an audio output •Can be folded and carried like a briefcase •Built-in one chip CCD colour video camera with 10 times auto zoom lens •High speed auto focus •Auto iris/white balance •Built-in back light function •Video switcher function •Revolving camera head •Equipped with an RS-232C interface port

Supplied accessories: AC cable
Operation manual

## Specifications

### General

| | |
|---|---|
| Pick-up device: | 1/3 inch Interline Transfer CCD(Single chip) |
| Picture element: | 752(H) × 582(V) Approx. 440,000 |
| Horizontal resolution: | 420 TV lines |
| Video signal system: | Phono (×2): 1.0Vp-p, 75Ω sync negative S-VIDEO (4 pin mini DIN) (×2): Y: 1.0Vp-p, 75Ω,sync negative C: 0.3Vp-p, 75Ω |
| Video output: | Phono (×1), BNC (×1) 1.0Vp-p, sync negative, 75Ω S-VIDEO OUT(4 pin mini DIN) Y out 1.0Vp-p, sync negative, 75Ω C out 0.3Vp-p,75Ω |
| Audio input: | Phono (×2), stereo, 47kΩ, -10dBu, unbalanced |
| Mic input: | 3.3kΩ, -60dBu unbalanced, Phono (×1) |
| Audio output: | Less than 600Ω, -10dBu unbalanced, Phono (×1) |
| Lighting: | 9W (×2) (Fluorescent lamp) |
| Back lighting: | 8W (×2) (Fluorescent lamp) |
| Object size to fill screen: | Zoom Wide. 310 × 235 mm (12 1/4 × 9 3/8 inches) Zoom Tele. 34 × 25.5 mm (1 3/8 × 1 1/16 inches) |
| Power consumption: | 30W |
| Power requirements: | AC 230V, 50/60 Hz |
| Mass: | 7.8 kg (17 lb 3 oz) |
| Dimensions: | 572(W) × 684(H) × 620(D)mm (22 5/8 × 27 × 24 1/2 inches) |

# VID-P300

## Video presentation stand

•Three-dimensional objects, charts, drawings, transparent sheets, slides etc. can be displayed on TV monitors and projectors •High horizontal resolution of 720 TV lines with 3 chip CCD colour video camera •RGB signal output for high picture quality •12-times powered zoom capability •Gen lock •The camera head angle change capability •Built-in back light function for transparent sheets, slides or posi films •RS-232C interface port for control from external computer •Can be folded for portability

Supplied accessories: AC cable
Operation manual

## Specifications

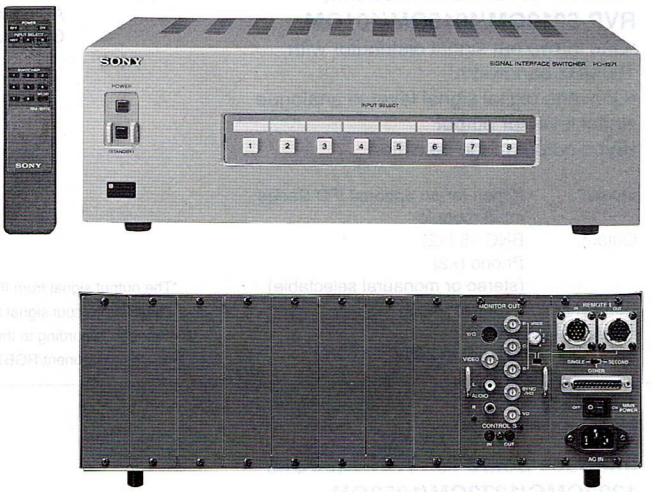
### General

| | |
|---|---|
| Pick-up device: | 1/2 inch interline transfer CCD (3 chip) |
| Picture element: | 752(H) × 582(V) |
| Horizontal resolution: | More than 720 TV lines |
| S/N ratio: | More than 58 dB |
| Lens: | F1.4, f=7.5-90 mm (x12 powered zoom) |
| Shooting area: | Zoom wide. 342 × 257 mm (133/6 × 101/8 inches) Zoom tele. 31.5 × 23.5 mm (1 1/4 × 1 5/16 inches) |
| Focus: | Powered |
| Iris: | Auto/Manual |
| Lighting: | 9W twin fluorescent lamp (×2) for arm light 8W fluorescent lamp (×2) for back light |
| B&W/colour: | Built-in (without RGB output) |
| Power requirement: | AC 230V |
| Power consumption: | 36W |
| Dimensions: | 572(W) × 912(H) × 620(D)mm 446(W) × 237(H) × 740(D)mm (when folded) |
| Mass: | Approx. 12.7 kg (26 lb 10 oz) |
| Inputs/outputs | |
| Inputs: | Gen lock: BNC (×1), 75Ω sync negative MIC: Phone (×1), 3.3kΩ, -60dBu, unbalanced |
| Output: | Video: Phono (×1), BNC (×1), 1.0Vp-p sync negative S-video: 4-pin mini DIN (×1) Y: 1.0Vp-p, 75Ω sync negative C: 0.286Vp-p, 75Ω RGB: BNC (× 4) RGB: 0.7Vp-p, 75Ω SYNC: 2.0Vp-p, 75Ω Audio: Phono (×1), less than 600Ω, -10dBu, unbalanced |
| Control: | RS-232C interface port (D-sub 25-pin) |

## PC-1271M

**Signal interface switcher for VPH-1292QM/1292QMG/ 1272QM/1252QM, RVP-6010QM/4015QM/401QM**

•Accepts up to eight signal inputs with IFB interface boards installed (a maximum of sixteen signal inputs with a second PC-1271M) •Connection to VPH-1292QM/1292QMG/ 1272QM/1252QM, RVP-6010QM/4015QM/401QM via a single CCQM-BRS or SIC-M multi-cable •Incorporates cable length compensation to maintain the RGB bandwidth of 70MHz when using a CCQM-BRS or SIC-M cable of up to 50m (165 ft). With the cable length compensation function, the 150MHz RGB bandwidth is guaranteed for MONITOR OUT. (Compensation switch selectable according to cable length) •Can be remotely controlled via the REMOTE 2(D-sub 25-pin) with an external control unit •Last channel memory •Supplied RM-1270S remote control unit for easy operation •19-inch EIA standard rack mountable with supplied rack mount kit




| | |
|---|---|
| Supplied accessories: | Remote control unit: RM-1270S |
| | AA Size battery (×2) |
| | AC power cord |
| | Rack mount with screws (one pair) |
| | Operation manual |
| | Input label (×2) |
| Optional accessories: | Interface Unit: IFU-1271M |
| | Interface Board*: IFB-11/20/30/101/1000/1200/ 1300/3000 |
| | Signal Interface Cable: SIC-10/20A/20B/20C/21/22/30 |

### Specifications

**General**

| | |
|---|---|
| RGB bandwidth: | 150MHz (-3dB) |
| Power reQMuirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Approx. 60W |
| Dimensions: | 424(W) × 133(H) × 290(D)mm (16¾ × 5¼ × 11½ inches) |
| Mass: | 8kg (17 lb 10 oz) |

**Inputs**

| | |
|---|---|
| Input 1 to 8: | (open for optional IFB Series input modules) |
| Remote 1: | 14-pin (male), from a second PC-1271M |
| Remote 2: | D-sub 25-pin (female) from the external control unit |
| Control S: | Loop-through Mini jack |

**Outputs**

| | |
|---|---|
| Monitor out: | |
| Video: | BNC<br>1Vp-p, sync negative, 75Ω |
| Y/C: | 4-pin mini DIN<br>Y(luminance): 1Vp-p, sync negative, 75Ω<br>C(chrominance): 0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω |
| R/B: | BNC<br>0.7Vp-p, 75Ω |
| G/Sync on G: | BNC<br>0.7Vp-p, 75Ω (Non-composite)<br>1Vp-p, sync negative, 75Ω (Composite) |
| HD/VD/HV: | BNC<br>1Vp-p, positive/negative, 75Ω |
| Audio: | Phono<br>(stereo or monaural selectable)<br>-5dBu, impedance 1kΩ |
| Remote 1: | 14-pin (female), To VPH-1292QM/1292QMG/ 1272QM/1252QM, RVP-6010QM/4015QM/401QM or first PC-1271M |

* IFB-1300 can be used with VPH-1292QM/1292QMG. IFB-3000 can be used with VPH-1292QM/1292QMG/1272QM/1252QM and RVP-6010QM/4015QM

## IFU-1271M

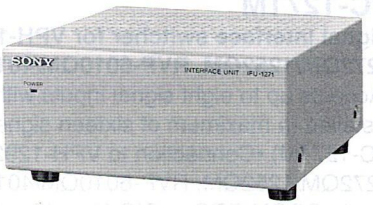
**Interface unit for VPH-1292QM/ 1292QMG/1272QM/1252QM, RVP-6010QM/4015QM/401QM**

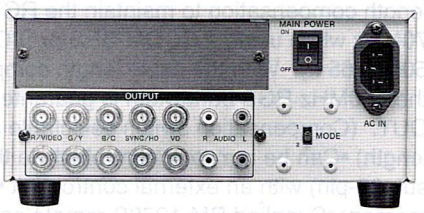
- One in/two out signal distributor with 100MHz bandwidth*
- Converts digital signal level to analogue signal level for output
- Sync output mode selection

Inputs: (Open for an optional IFB Series input module)
Output: BNC ×5 (×2)
Phono (×2)
(stereo or monaural selectable)
Bandwidth: 120MHz (-3dB)
Power requirements:
AC 220 to 240V, 50/60Hz

Dimensions: 180(W) × 105(H) × 185(D)mm ($7^{1}/_{8} \times 4^{1}/_{4} \times 7^{3}/_{8}$ inches)
Mass: 3kg (6 lb 9.8 oz)
Supplied accessories:
AC power cord
Operation manual

*The output signal from IFB-1000 is the same as the input. The output signal from IFB-1200 can be changed according to the selection switch on the board (component/RGB).

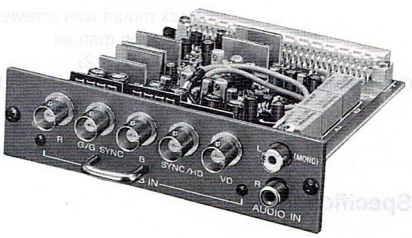



## IFB-11*

**Interface board for VPH-1292QM/ 1292QMG/1272QM/1252QM, RVP-6010QM/4015QM/401QM and PC-1271M/IFU-1271M**

Inputs
RGB: Analogue, BNC (×5)
AUDIO: Phono
(stereo or monaural selectable)
Dimensions: 129(W) × 35(H) × 138(D)mm ($5^{1}/_{8} \times 1^{7}/_{16} \times 5^{1}/_{2}$ inches)
Mass: 180g (6.3 oz)




*The IFB-11 is fitted in the VPH-1292QM/1292QMG/1272QM/1252QM and RVP-6010QM/4015QM/4010QM as standard.

## IFB-12

**Interface board for VPH-1292QM*/ 1292QMG*/1272QM*/1252QM*, RVP-6010QM*/4015QM*/401QM* and PC-1271M/ IFU-1271M**

- Accepts analogue RGB, component (Y/R-Y/B-Y), HDTV (Y/PB/PR), HDTV (GBR), composite video and S video signals
- RGB bandwidth of 300MHz
- Cable compensation function for output signals (150MHz)

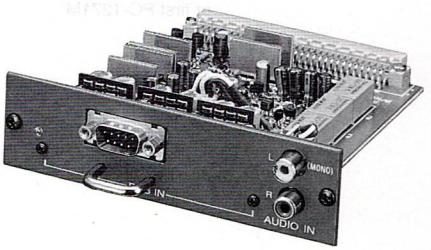
Inputs/Outputs:
BNC (×5)
Phono
(stereo or monaural selectable)
Dimensions: 129(W) × 35(H) × 138(D)mm ($5^{1}/_{8} \times 1^{7}/_{16} \times 5^{1}/_{2}$ inches)
Mass: Approx. 200g (7 oz)

* For input only. Acceptable signals: Analogue RGB, component (Y/R-Y/B-Y), composite video, S video.

## IFB-20

**Interface board for VPH-1292QM/ 1292QMG/1272QM/1252QM, RVP-6010QM/4015QM/401QM and PC-1271M/IFU-1271M**

Inputs
RGB: Analogue, D-sub 9-pin (male)
AUDIO: Phono
(stereo or monaural selectable)
Dimensions: 129(W) × 35(H) × 138(D)mm ($5^{1}/_{8} \times 1^{7}/_{16} \times 5^{1}/_{2}$ inches)
Mass: 170g (6.0 oz)



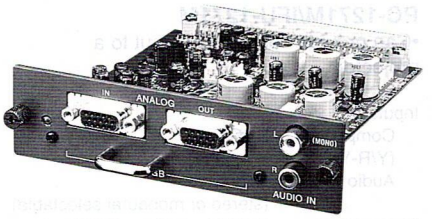
## IFB-21

**Interface board for VPH-1292QM/ 1292QMG/1272QM/1252QM, RVP-6010QM/4015QM/401QM and PC-1271M/IFU-1271M**

•RGB bandwidth of 150MHz

Inputs
RGB: Analogue, HD D-sub 15-pin
AUDIO: Phono
(stereo or monaural selectable)

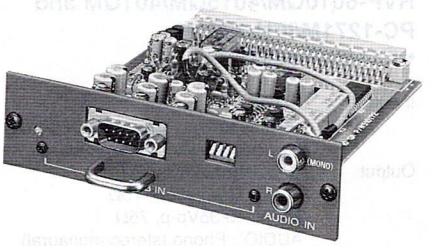
Dimensions: 129(W) × 35(H) × 138(D)mm
(5⅛ × 1 7/16 × 5½ inches)
Mass: Approx. 200g (7 oz)




## IFB-30

**Interface board for VPH-1292QM/ 1292QMG/1272QM/1252QM, RVP-6010QM/4015QM/401QM and PC-1271M/IFU-1271M**

Inputs
RGB: TTL level, D-sub 9-pin
AUDIO: Phono
(stereo or monaural selectable)
Dimensions: 129(W) × 35(H) × 138(D)mm
(5⅛ × 1 7/16 × 5½ inches)
Mass: 110g (3.9 oz)




DISPLAY PRODUCTS

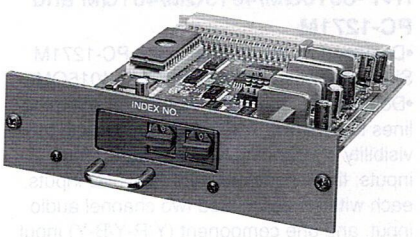
## IFB-101*

**Interface board for VPH-1292QM/ 1292QMG/1272QM/1252QM, RVP-6010QM/4015QM/401QM and PC-1271M**

•Index control for maximum of 100 projectors
•Automatic power on/delayed power on function

Dimensions: 129(W) × 35(H) × 138(D)mm
(5⅛ × 1 7/16 × 5½ inches)
Mass: 0.15kg (5.3 oz)

*Supplied with the RVP-401QM.

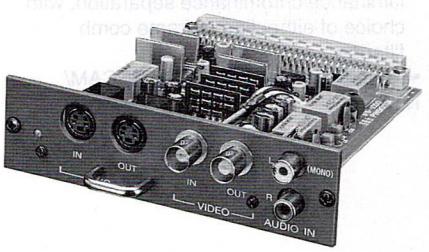



## IFB-1000*1

**Interface board for VPH-1292QM/ 1292QMG/1272QM/1252QM, RVP-6010QM/4015QM/401QM and PC-1271M/IFU-1271M**

Inputs
Composite*2:
Loop-through BNC
Y/C*2: Loop-through Mini DIN 4-pin
Audio: Phono
(stereo or monaural selectable)
Dimensions: 129(W) × 35(H) × 138(D)mm
(5⅛ × 1 7/16 × 5½ inches)
Mass: 160g (5.6 oz)

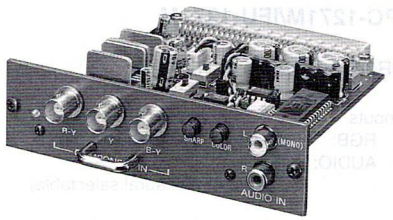
*1 Supplied with the RVP-4015QM.
*2 The Y/C IN has priority over the Composite IN.



## IFB-1200

**Interface board for VPH-1292QM/ 1292MQG/1272QM/1252QM, RVP-6010QM/4015QM/401QM and PC-1271M/IFU-1271M**

•Can provide component input to a projector




Inputs
- Component (Y/R-Y/B-Y): BNC (×3)
- Audio: Phono (stereo or monaural selectable)

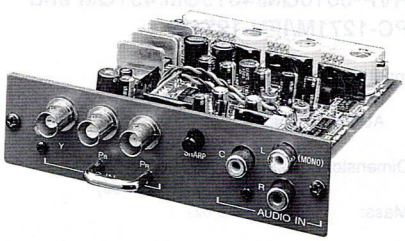
Dimensions: 129(W) × 35(H) × 138(D)mm ($5^{1}/_{8} \times 1^{7}/_{16} \times 5^{1}/_{2}$ inches)

Mass: 0.18kg (6.3 oz)

## IFB-1300

**Interface board for VPH-1292QM/ 1292QMG/1272QM/1252QM, RVP-6010QM/4015QM/401QM and PC-1271M/IFU-1271M**

•HD(Y/$P_B$/$P_R$) input




Inputs: HD: BNC
Y(luminance): 1Vp-p±2dB, 75Ω
$P_B$/$P_R$ (component): ±0.35 Vp-p, 75Ω

Output: G/Y: 1Vp-p±2dB, 75Ω
B/R: 0.7Vp-p±2dB, 75Ω
$P_B$/$P_R$: ±0.35Vp-p, 75Ω
AUDIO*: Phono (stereo/monaural) 250mVrms, impedance more than 47kΩ

Dimension: 129(W) × 35(H) × 138(D)mm ($5^{1}/_{8} \times 1^{7}/_{16} \times 5^{1}/_{2}$inches)

Mass: 200g (7 oz)

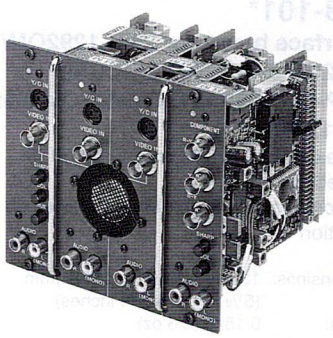
* Audio is not applicable for VPH-1292QM/1292QMG.

## IFB-3000

**Interface board for VPH-1292QM/ 1292QMG/1272QM/1252QM, RVP-6010QM/4015QM/401QM and PC-1271M**

•Designed for installation in the PC-1271M Signal Interface Switcher or RVP-4015QM •Doubles the number of horizontal scanning lines to minimize line-flicker and reduce the visibility of scanning lines •Contains four inputs; three composite video or Y/C inputs, each with an associated two channel audio input, and one component (Y/R-Y/B-Y) input with two channel audio•Digital frame memory circuit for improved picture reproduction
- Detects motion in a picture during the line doubling process for natural reproduction of moving pictures
- Digital Noise Reducer
- Aperture correction function for enhanced picture edges, vertically as well as horizontally
- Three-dimensional Comb Filter for clear luminance/chrominance separation, with choice of either line or frame comb filtering

•Compatible with PAL/NTSC/SECAM/ $NTSC_{4.43}$*1




### Specifications

**General**

Colour system: PAL/NTSC /SECAM /$NTSC_{4.43}$ (automatically selected)

Sampling frequency: 14.3MHz

Power requirements: DC 12V (supplied from the PC-1271M or RVP-4015QM)

Power consumption: Approx. 20W

Dimensions: 141(W) × 129(H) × 138(D)mm ($4^{5}/_{8} \times 5^{1}/_{8} \times 5^{1}/_{2}$ inches)

Mass: 870g (1 lb 15 oz)

**Inputs**

VIDEO

VIDEO 1 to 3

Composite video*2: BNC, 1Vp-p, sync negative, 75Ω

Y/C*2: Mini DIN 4-pin
Y (luminance): 1Vp-p, sync negative, 75Ω
C (chrominance): 0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω

VIDEO 4

Y/R-Y/B-Y*3: BNC
R-Y/B-Y: 0.7Vp-p, 75Ω
Y:1.0Vp-p, sync negative, 75Ω

AUDIO: Phono (stereo or monaural selectable)

*1 The $NTSC_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 The Y/C input have priority over the composite video input.
*3 525/60 system: video amplitude 100/0/75 colour bars.
625/50 system: video amplitude 100/0/100 colour bars.

## SIC-10

**Signal interface cable for VPH-1292QM/1292QMG/1272QM/ 1252QM, RVP-6010QM/4015QM/ 401QM and PC-1271M**

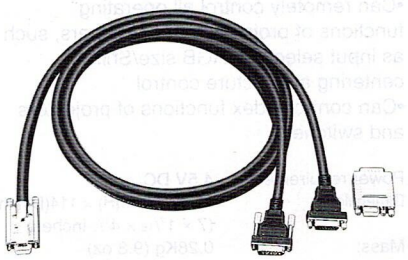
Connector: 5BNC/5BNC
Length: 10m (32.8 ft)

## SIC-20A/20B/20C

**Signal interface cable for 1292QM/1292QMG/1272QM/ 1252QM, RVP-6010QM/4015QM/ 401QM and PC-1271M**

- SIC-20A for Macintosh II Series
- SIC-20B for Macintosh LC and PowerBook
- SIC-20C for Power Macintosh, Macintosh LC, PowerBook, Quadra and Centris

Connector: D-sub 15-pin to local monitor (female)
D-sub 15-pin to computer (male)
D-sub 9-pin to IFB-20 (female)
Length: 2m (6.6ft) overall, 0.2m (0.7ft) branch



SIC-20C



## SIC-21

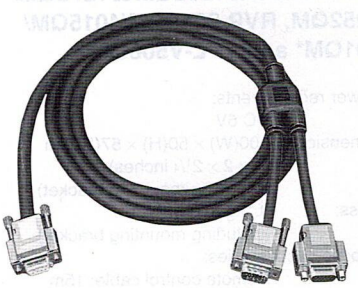
**Signal interface cable for VPH-1292QM/1292QMG/1272QM/ 1252QM, RVP-6010QM/4015QM/ 401QM and PC-1271M**

Connector: D-sub 9-pin to local monitor (female)
D-sub 9-pin to computer (male)
D-sub 9-pin to IFB-20 (female)
Length: 2m (6.6 ft) overall, 0.2m (0.7ft) branch

## SIC-22

**Signal interface cable for VPH-1292QM/1292QMG/1272QM/ 1252QM, RVP-6010QM/4015QM/ 401QM and PC-1271M**

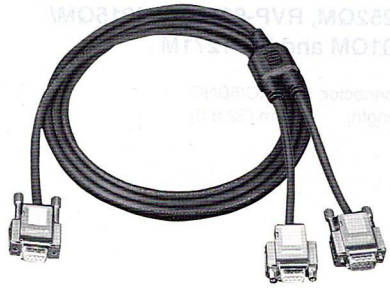
Connector: High Density 15-pin to local monitor (female)
High Density 15-pin to computer (male)
D-sub 9-pin to IFB-20 (female)
Length: 2m (6.6 ft) overall, 0.2m (0.7 ft) branch



## SIC-30

**Signal interface cable for VPH-1292QM/1292QMG/1272QM/ 1252QM, RVP-6010QM/4015QM/ 401QM and PC-1271M**

Connector: D-sub 9-pin to local monitor (female)
D-sub 9-pin to computer (male)
D-sub 9-pin to IFB-30 (female)
Length: 2m (6.6 ft) overall, 0.2m (0.7 ft) branch



## RM-1271

**Remote control unit for RVP-401QM and PC-1271M**

- Can remotely control all operating functions of projectors and switchers, such as input selection, RGB size/Shift, centering and picture control
- Can control index functions of projectors and switchers

Power requirements: 4.5V DC
Dimensions: 175(W) × 35(H) × 114(D)mm ($7 \times 1\frac{7}{16} \times 4\frac{1}{2}$ inches)
Mass: 0.28Kg (9.8 oz)

## RM-1270S

**Remote control unit for VPH-1292QM/1292QMG/1272QM/ 1252QM, RVP-6010QM/401QM and PC-1271M***

- Can remotely control input selection and power on/off of the projector and switcher

Dimensions: 40(W) × 20(H) × 175(D)mm ($1\frac{5}{8} \times 1\frac{3}{16} \times 7$ inches)
Mass: 55g (2 oz)

*RM-1270S is supplied with the PC-1271M.

## RM-PJ10

**Remote control receiver for VPH-1292QM/1292QMG/1272QM/ 1252QM, RVP-6010QM/4015QM/ 401QM* and VPL-V500QM**

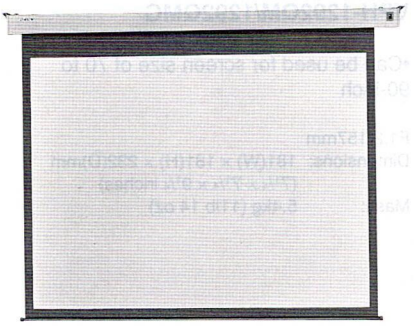
Power requirements: DC 6V
Dimensions: 100(W) × 50(H) × 57(D)mm ($4 \times 2 \times 2\frac{1}{4}$ inches) (including mounting bracket)
Mass: 0.1kg (3.5 oz) (including mounting bracket)
Supplied accessories:
Remote control cable: 15m (450 feet)
Screws

*An AC adapter (AC-E60M) is necessary when using the RM-PJ10 with the RVP-401QM.

## VPS-120FH/100FH/72HG1/100HG1

**Video screen for VPH-1292QM/1292QMG/1272QM/1252QM/1044QM/1001QM, VPL-V500QM***

| | VPS-120FH | VPS-100FH | VPS-72HG1 | VPS-100HG1 |
|---|---|---|---|---|
| Screen size | 120-inch | 100-inch compatible | 72-inch | 100-inch |
| Construction | Beaded glass high-efficiency flat screen with winding mechanism | | Aluminized high-efficiency concave screen | |
| Dimensions | 2780(W) × 2545(H)mm (109 1/2 × 100 1/4 inches) | 200(W) × 1765(H)mm (86 3/4 × 691/2 inches) | 1510(W) × 1125(H)mm (591/2 × 443/8 inches) | 2100(W) × 1600(H)mm (823/4 × 63 inches) |
| Mass | 21kg (46 lb 5 oz) | 8kg (17 lb 10 oz) | 14 kg (31 lb) | 30kg (66 lb 2 oz) |

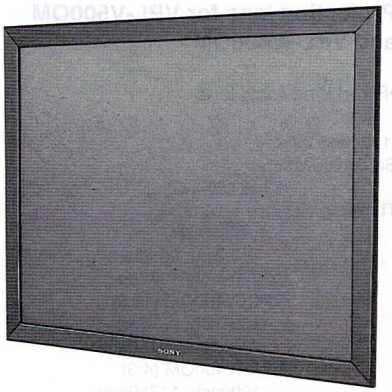


*VPL-V500QM can be used with the VPS-120FH/100FH only.

## VPS-702R

**70-inch rear screen for VPH-1292QM/1292QMG/1272QM/1252QM/1044QM/1001QM**

| | VPS-702R |
|---|---|
| Screen size | 70-inch |
| Screen pitch | 0.72mm (1/32 inches) |
| Construction | Rear projection, 70-inch acrylic plastic screen, Fresnel, lenticular type with Black stripe |
| Dimensions | Max. outer size: 1465(W) × 1110(H) × 4(D)mm (57 3/4 × 43 3/8 × 3/16 inches)<br>Valid screen size: 1427(W) × 1070(H)mm (56 1/4 × 42 1/4 inches) |
| Mass | 7.9kg (17 lb 7 oz) |





## VPF-701R

**Rear screen frame for VPS-702R**

Dimensions: Outer size:
1597(W) × 1240(H) × 30(D)mm
(63 × 48 7/8 × 1 3/16 inches)
Inner size:
1427(W) × 1070(H)mm
(56 1/4 × 42 1/4 inches)
Mass: 8.5kg (18 lb 11.8 oz)
Supplied accessories:
Bracket, screws

## PSS-10/500/722/1270/1272

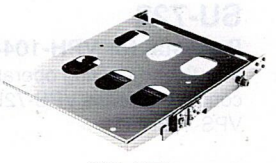
**Suspension support:**
**PSS-10* for PSS-722/1270/1272**
**PSS-500 for VPL-500QM/W400QM**
**PSS-722 for VPH-1044QM/1001QM**
**PSS-1270 for VPH-1292QM/ 1292QMG/1272QM/1252QM**
**PSS-1272 for VPH-1272QM/1252QM**

1. Direct installation on the ceiling— PSS-500/722/1270/1272
2. Installation on the ceiling (height adjustable)— PSS-10+PSS-722 or PSS-1270 or PSS-1272

* PSS-10 cannot be used when installing the VPH-1292QM/ 1292QMG with PSS-1270.

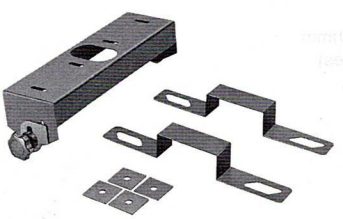
Mass: PSS-10: 10.3kg (22 lb 11 oz)
PSS-500: 3.0kg (61 lb 10 oz)
PSS-722: 1.8kg (3 lb 15 oz)
PSS-1270: 7.8kg (17 lb 3 oz)
PSS-1272: 6kg (13 lb 4 oz)

PSS-500

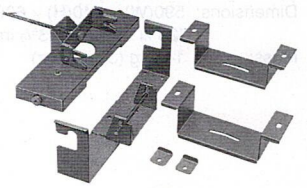


PSS-1272

PSS-10



PSS-722



PSS-1270

## VPHL-9270
**Projection lens for VPH-1292QM/1292QMG**

•Can be used for screen size of 70 to 90-inch

F1.2/157mm
Dimensions: 181(W) × 181(H) × 232(D)mm
(7 1/4 × 7 1/4 × 9 1/4 inches)
Mass: 5.4kg (11lb 14 oz)

## VPLL-FM100
**Projection lens for VPL-V500QM and VPL-W400QM**

•Fixed long focal lens

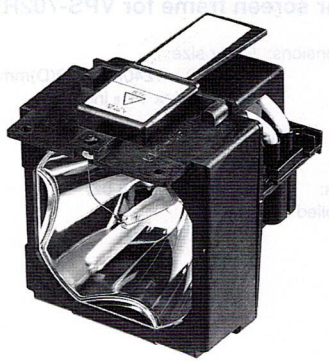
f130mm/F3.0
Screen coverage:
40 to 300-inch
Throwing distance:
VPL-V500QM
100-inch: 9860mm
200-inch: 19720mm
VPL-W400QM (16:9)
100-inch: 9570mm
200-inch: 19140mm
VPL-W400QM (4:3)
100-inch: 11750mm
200-inch: 23490mm

Dimensions: 95(W) × 85(H) × 175(D)mm
(3 3/4 × 3 3/8 × 7 inches)
Mass: 670g (1 lb 8 oz)

## PK-PJ500*
**Projector lamp (for replacement) for VPL-V500QM and W400QM**

•250W metal halide lamp

Dimensions: 104(W) × 122(H) × 115(D)mm
(4 1/8 × 4 7/8 × 4 5/8 inches)
Mass: 390g (14 oz)



*PK-PJ500 is not available in some areas. Please consult your nearest Sony office.

## SU-722
**Pedestal for VPH-1044QM/1001QM**
•For floor mounting operation used with concave screens VPS-72HG1 or VPS-100HG1

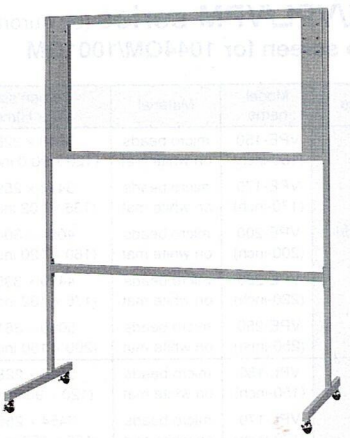
Carrying capability: Bottom plate 60 kg (132 lb 4 oz)
Shelf 30kg (66 lb 2 oz)
Dimensions: 590(W) × 640(H) × 600(D)mm
(23 1/4 × 25 1/4 × 23 5/8 inches)
Mass: 14.6kg (32 lb 3 oz)

## VSS-72/100

**Video screen stand for VPS-72HG1 (VSS-72) and VPS-100HG1 (VSS-100)**

**VSS-72**
Dimensions: 1324(W) × 1915(H) × 820(D)mm
(52 1/4 × 75 1/2 × 32 3/8 inches)
Mass: 25kg (55 lb 2 oz)

**VSS-100**
Dimensions: 2200(W) × 1700(H) × 820(D)mm
(86 3/4 × 67 × 32 3/8 inches)
Mass: 29kg (63 lb 15 oz)

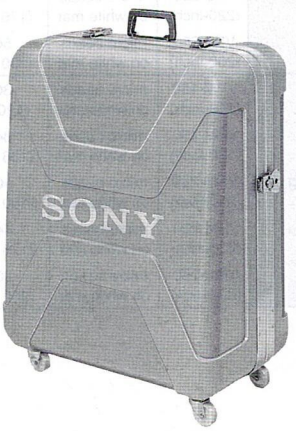


## VLC-1040

**Carrying case for VPH-1044QM/1001QM**

•Suitable for transportation or storage

Dimensions: 640(W) × 810(H) × 355(D)mm
(25 1/4 × 32 × 14 inches)
Mass: 10kg (22 lb 1 oz)






## VLC-500

**Carrying case for VPL-V500QM/W400QM**

•Soft case with handle and caster
•Can store the mouse receiver and cables

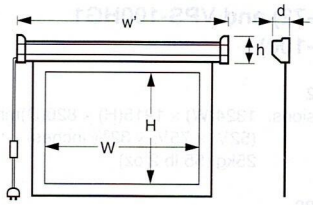
Dimensions: 430(W) × 622(H) × 298(D)mm
(17 × 24 1/2 × 11 3/4 inches)
Mass: Approx. 4.5kg (9 lb 15 oz)

## VPE/VPL/VPM series (by Aurora)

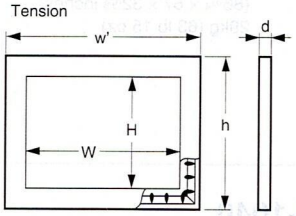
### Video screen for 1044QM/1001QM

| Type | Model name | Material | Screen size (W × H)mm | Dimensions (W × H × D)mm | Mass (kg) | Screen seam |
|---|---|---|---|---|---|---|
| Motor drive | VPE-150 (150-inch) | micro beads on white mat | 3048 × 2286 (120 × 90.0 inches) | 3455 × 150 × 118 (136 × 5.9 × 4.6 inches) | 26 | horizontal (1) |
| | VPE-170 (170-inch) | micro beads on white mat | 3454 × 2591 (136 × 102 inches) | 3862 × 150 × 118 (152 × 5.9 × 4.6 inches) | 30 | horizontal (1) |
| | VPE-200 (200-inch) | micro beads on white mat | 4064 × 3048 (160 × 120 inches) | 5812 × 310 × 248 (228.8 × 12.2 × 9.8 inches) | 129 | horizontal (1) |
| | VPE-220 (220-inch) | micro beads on white mat | 4470 × 3353 (176 × 132 inches) | 6238 × 310 × 248 (245.6 × 12.2 × 9.8 inches) | 140 | horizontal (1) |
| | VPE-250 (250-inch) | micro beads on white mat | 5080 × 3810 (200 × 150 inches) | 6928 × 310 × 248 (272.8 × 12.2 × 9.8 inches) | 150 | horizontal (2) |
| Tension | VPL-150 (150-inch) | micro beads on white mat | 3048 × 2286 (120 × 90 inches) | 3448 × 2286 × 55 (135.8 × 90 × 2.2 inches) | 36 | vertical (1) |
| | VPL-170 (170-inch) | micro beads on white mat | 3454 × 2591 (136 × 102 inches) | 3854 × 2991 × 55 (151.7 × 117.7 × 2.2 inches) | 41 | vertical (1) |
| | VPL-200 (200-inch) | micro beads on white mat | 4064 × 3048 (160 × 120 inches) | 4664 × 3648 × 55 (183.6 × 143.6 × 2.2 inches) | 48 | vertical (2) |
| | VPL-220 (220-inch) | micro beads on white mat | 4470 × 3353 (176 × 132 inches) | 5070 × 3953 × 55 (199.6 × 155.6 × 2.2 inches) | 53 | vertical (2) |
| | VPL-250 (250-inch) | micro beads on white mat | 5080 × 3810 (200 × 150 inches) | 5680 × 4410 × 55 (223.6 × 173.6 × 2.2 inches) | 60 | vertical (2) |
| Hang.up | VPM-150 (150-inch) | micro beads on white mat | 3048 × 2286 (120 × 90 inches) | 3292 × 2456 × 35 (129.6 × 96.7 × 1.4 inches) | 9.5 | horizontal (1) |
| | VPM-170 (170-inch) | micro beads on white mat | 3454 × 2591 (136 × 102 inches) | 3698 × 2761 × 35 (145.6 × 108.7 × 1.4 inches) | 11 | horizontal (1) |
| | VPM-200 (200-inch) | micro beads on white mat | 4064 × 3048 (160 × 120 inches) | 4584 × 3488 × 35 (180.5 × 137.3 × 1.4 inches) | 12 | horizontal (1) |
| | VPM-220 (220-inch) | micro beads on white mat | 4470 × 3353 (176 × 132 inches) | 5010 × 3813 × 35 (197.2 × 150.1 × 1.4 inches) | 13 | horizontal (1) |
| | VPM-250 (250-inch) | micro beads on white mat | 5080 × 3810 (200 × 150 inches) | 5700 × 4350 × 35 (224.4 × 171.2 × 1.4 inches) | 15 | horizontal (2) |

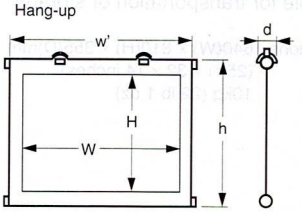
Motor drive




Tension




Hang-up



# DSC-1024

•Versatile upward and downward digital scan converter •Input accepted in the 15.6 to 70kHz horizontal frequency range and the 50 to 120Hz vertical frequency range and output at an industry standard 15.6kHz, 31.5kHz, 37kHz, 48kHz or 64kHz frequency •Built-in transcoder for universal conversions between video signal formats •PAL/NTSC conversion capability •Scan doubler capability •Automatic input signal recognition •Variable offset sampling and High-density vertical interpolation capability for conversion resolutions •Adjustable aspect ratios •Built-in test pattern generator •Zoom, pan and freeze frame functions provided for easy operation •On-screen display for adjustment/ operation

| | |
|---|---|
| Supplied accessories: | D-sub 15-pin to 5BNC cable (6ft.)<br>Operation manual |
| Optional accessories: | Rack mount bracket: MB-510<br>D-sub 15-pin to 5 BNC cable: SMF-400<br>D-sub 15-pin to D-sub 15-pin cable: SMF-401<br>Remote commander: RM-854, RM-PJ1292, RM-1271, RM-PJM500, RM-PJC520, etc. |

## Specifications

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 30W (max. power on), 3W (typical power off) |
| Dimensions: | 424(W) × 44(H) × 354(D)mm<br>($16^3/_4 \times 1^3/_4 \times 4$inches) |
| Mass: | 4.1kg (9 lb 1 oz) |

**Input connector**

| | |
|---|---|
| Video 1: | Composite: Loop-through BNC<br>S Video: Loop-through Mini DIN 4-pin |
| Video 2: | Composite: Loop-through BNC<br>S Video: Loop-through Mini DIN 4-pin |
| Video 3: | Component (R/G/B, Y/R-Y/B-Y)<br>Loop-through D sub 15-pin |
| Audio1/2/3: | L/R RCA jack |

**Output connector**

| | |
|---|---|
| Video out: | Composite: BNC |
| S Video: | MINI DIN 4-pin |
| Component (R/G/B, Y/R-Y/B-Y): | D sub 15-pin |
| Audio: | L/R RCA jack |

**Signal level**

| | | |
|---|---|---|
| Composite: | 1Vp-p (typical), Automatic 75Ω termination | |
| S Video: | Y: Vp-p (typical), sync negative<br>C: 0.3Vp-p (PAL)/0.286Vp-p (NTSC) (typical)<br>Automatic 75Ω termination | |
| Component: | R/G/B input: | 0.714Vp-p (typical)(sync on G/external sync, switchable), 75Ω/Hi-Z |
| | R/G/B output: | 0.714Vp-p (typical) (with external sync), 75Ω (typical) |
| | Y/R-Y/B-Y input: | 0.7Vp-p (typical) (PAL/NTSC, sync on Y), 75Ω/Hi-Z |
| | Y/R-Y/B-Y output: | 0.7Vp-p (typical) (with sync on Y), 75Ω (typical) |

**Format conversion**

| | |
|---|---|
| Capture range: | fH: 15.6 to 70kHz, fV: 50 to 120Hz |
| Sampling rate: | 14.3 to 40MHz offset phase max.<br>(Equivalent to 80MHz sampling) |
| Output pixel clock: | 14.3 to 50MHz |
| Line doubler: | Line doubled vertically for each field |
| Picture adjustment: | CONTRAST/PHASE (except for RGB)<br>SIZE/CENTER/ZOOM (×2, ×3, ×4)/APERTUIRE (ON/OFF)/STILL (ON/OFF) |

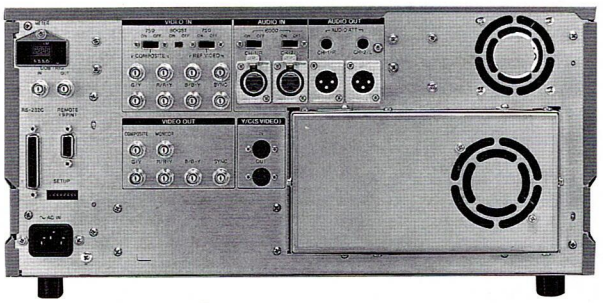
**Laser VideoDisc recording systems**

1. Laser VideoDisc recorder/players
LVR-4000AP .....178
LVR-4700P .....179
LVR-3300M .....180
2. Laser VideoDisc accessories
LVR-3AAO .....181
RM-9000PR .....181
RM-W7000 .....182

# LVR-4000AP

## Laser VideoDisc recorder

•Writable disc media, LVM-3AA0, with the storage capacity of 36,250 still frames or 24 minutes of moving pictures per side •Capable of long-term storage •Adopts the component time division multiplex video recording format for the high quality picture performance •PCM audio recording •Quick random access within 0.5 seconds or less •Frame memory function •Provided with RS-232C remote interface and 9-pin REMOTE interface (RS-422) •Noiseless picture playback at variable speeds •Genlock capability •Multiple video input/output facility •Wired/wireless remote operation via the RM-W3000 supplied Remote Commander •The optional RM-9000PR Programmable Remote Controller available for programming customized playback operation



Note: The LVR-4000AP does not support playback of CRV discs recorded in black and white mode

| | |
|---|---|
| Supplied accessories: | Operation manual<br>AC power cord<br>Remote commander RM-W3000<br>RS-232C interface manual LDM-5000<br>9-pin remote interface manual LDM-5422 |
| Optional accessories: | Laser VideoDisc media LVM-3AA0<br>Programmable remote controller RM-9000PR<br>Rack mount kit RMM-7000A<br>VideoDisc cleaning kit WOA-D11 |

## Specifications

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 115W |
| Operating temperature: | 5°C to 35°C (41°F to 95°F) |
| Storage temperature: | –20°C to 60°C (–4°F to 140°F) |
| Humidity: | 20 to 80% |
| Mass: | 24kg (52 lb 15 oz) |
| Dimensions: | 424(W) × 214(H) × 568(D)mm<br>($16^3/_4$ × $8^1/_2$ × $22^3/_8$ inches) |
| User data area: | 64 Byte × 1024 tracks per side |

**Recording/playback system**

| | |
|---|---|
| Recording mechanism: | Alloy mode |
| Laser: | Semiconductor diode laser (l:780 nm) |
| Laser output: | 17mW |
| VideoDisc: | 12-inch (300 mm) (CAV mode only) |
| Maximum playback/recording time and frames: | 24min. 10 sec./side, 36,250 frames/side |
| Spindle speed: | 1,500 r/min |
| Access time: | 0.5 sec. (full stroke average) |
| Variable speed playback: | 1/255 to 3 times normal speed in forward and reverse directions plus still |

**Video**

| | |
|---|---|
| Signal: | CCIR standard, PAL colour |
| Inputs | |
| Composite: | 1.0 Vp-p, 75Ω switchable, unbalanced, sync negative (BNC) |
| Y/C: | Y: 1.0 Vp-p, 75Ω, unbalanced, sync negative<br>C: 0.3 Vp-p, 75Ω, unbalanced, sync negative<br>(Mini DIN 4-pin) |
| Component: | Y: 1.0 Vp-p, 75Ω, unbalanced, sync negative, (BNC)<br>R-Y/B-Y: 0.7 Vp-p, 75Ω, unbalanced (BNC) |
| RGB: | 0.7 Vp-p, 75Ω, unbalanced (BNC) |
| Ref. video: | 1.0 Vp-p, 75Ω switchable, unbalanced, sync negative, (BNC) |
| Ext. sync: | 0.2 Vp-p to 5 Vp-p, 75Ω, negative (BNC) |
| Output: | Composite: 1.0 Vp-p, 75Ω, unbalanced, sync negative (BNC) |
| Y/C: | Y: 1.0 Vp-p, 75Ω, unbalanced, sync negative<br>C: 0.3 Vp-p, 75Ω, unbalanced, sync negative<br>(Mini DIN 4-pin) |
| Component: | Y: 1.0 Vp-p, 75Ω, unbalanced, sync negative, (BNC)<br>R-Y/B-Y: 0.7 Vp-p, 75Ω, unbalanced (BNC) |
| RGB: | 0.7 Vp-p, 75Ω, unbalanced (BNC) |
| SYNC: | 2.0 Vp-p, 75Ω, unbalanced, negative, BNC |
| MONITOR: | 1.0 Vp-p, 75Ω, unbalanced,sync negative (BNC) |
| Bandwidth (luminance): | 4.5MHz (component video out) |
| Signal-to-noise ratio: | 48dB (typical) |

**Audio**

| | |
|---|---|
| Input CH 1/2: | +4dBu, 600Ω/10kΩ, selectable, balanced (XLR) |
| Output CH 1/2: | +4dBu, 600Ω/10kΩ, balanced (XLR) |
| Headphone: | –46dBu to –26dBu, 8Ω, unbalanced (phone) |
| Dynamic range: | 88dB |
| Frequency response: | 20Hz to 15kHz |

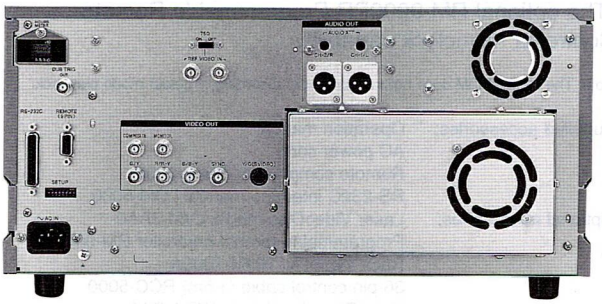
**External control interface**

| | |
|---|---|
| Interface: | RS-232C: 25-pin<br>REMOTE: 9-pin (RS-422) |
| Protocol: | RS-232C: Compatible with Sony LVA and LDP series<br>REMOTE: Conforming to Sony 9-pin Protocol |

# LVA-4700P

## Laser VideoDisc player

•High quality picture performance with the component time division multiplex×video recording format •Quick random access within 0.5 seconds or less •Frame memory function •Provided with RS-232C remote interface and 9-pin REMOTE interface (RS-422) •Noiseless picture playback at variable speeds •Genlock capability •Multiple video output facility •Wired/wireless remote operation via the RM-W7000 optional Remote Commander •The optional RM-9000PR Programmable Remote Controller is available for creating customized operational programmes



Note: The LVR-4000AP does not support playback of CRV discs recorded in black and white mode

| | |
|---|---|
| Supplied accessories: | Operation manual<br>AC power cord<br>RS-232C interface manual LDM-5000<br>9-pin remote interface manual LDM-5422 |
| Optional accessories: | Laser VideoDisc media LVM-3AA0<br>Remote commander RM-W7000<br>Programmable remote controller RM-9000PR<br>Rack mount kit RMM-7000A<br>VideoDisc cleaning kit WOA-D11 |

## Specifications

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 90W |
| Operating temperature: | 5°C to 35°C (41°F to 95°F) |
| Storage temperature: | –20°C to 60°C (–4°F to 140°F) |
| Humidity: | 20 to 80% |
| Mass: | 23kg (50 lb 11 oz) |
| Dimensions: | 424 (W) × 214 (H) × 568 (D)mm<br>(16 3/4 × 8 1/2 × 22 3/8 inches) |

**Playback system**

| | |
|---|---|
| Laser: | Semiconductor diode laser (l: 780 nm) |
| VideoDisc: | 12-inch (300 mm) |
| Maximum playback time and frames: | 24 min. 10 sec./side, 36,250 frames/side |
| Spindle speed: | 1,500 r/min |
| Access time: | 0.5 sec. (full stroke average) |
| Variable speed playback: | 1/255 to 3 times normal speed in forward and reverse direction plus still |

**Video**

| | |
|---|---|
| Signal: | CCIR standard, PAL colour system |
| Outputs | |
| Composite: | 1.0 Vp-p, 75Ω, unbalanced, sync negative (BNC) |
| Y/C: | Y: 1.0 Vp-p, 75Ω, unbalanced, sync negative<br>C: 0.3 Vp-p, 75Ω, unbalanced (Mini DIN 4-pin) |
| Component: | Y: 1.0 Vp-p, 75Ω, unbalanced, sync negative (BNC)<br>R-Y/B-Y: 0.7 Vp-p, 75Ω, unbalanced (BNC) |
| RGB: | 0.7 Vp-p, 75Ω, unbalanced (BNC) |
| SYNC: | 2.0 Vp-p, 75Ω, unbalanced (BNC) |
| Monitor out: | 1.0 Vp-p, 75Ω, unbalanced, sync negative (BNC) |
| Inputs | |
| Ref. video: | 1.0 Vp-p, 75Ω, unbalanced, sync negative (BNC, loop through) |
| Bandwidth (luminance): | 4.5MHz (component video out) |
| Signal-to-noise ratio: | 48dB (typical) |

**Audio**

| | |
|---|---|
| Output CH 1/2: | +4dBu, 600Ω, balanced, level adjustable (XLR ×2) |
| Headphone: | –46dBu to –26dBu, 8Ω, unbalanced (phone) |
| Dynamic range: | 88dB |
| Frequency response: | 20Hz to 15kHz |

**External control interface**

| | |
|---|---|
| Interface: | RS-232C: 25-pin<br>REMOTE: 9-pin (RS-422 serial) |
| Protocol: | RS-232C: Compatible with Sony LVA and LDP series<br>REMOTE: Conforming to Sony 9-pin Protocol |

# LVR-3300M

## Black and White mode recorder/player

•Writable disc media, LVM-3AA0, with the storage capacity of 36,250 (625 line mode)/43,500 (525 line mode) still frames or 24 minutes of moving pictures per side •625-line and 525-line signal recording and playback capability •Capable of long-term storage •600 TV line resolution •Quick random access within 0.5 seconds or less •Frame memory function •Text recordable on each frame via RS-232C interface •Provided with RS-232C remote interface •Noiseless picture playback at variable speeds •Wired/wireless remote operation via the RM-W3000 supplied Remote Commander •The optional RM-9000PR Programmable Remote Controller •Synclock capability

Note: The LVR-3300M does not support audio recording or colour mode playback.

| | |
|---|---|
| Supplied accessories: | Operation manual<br>AC power cord<br>Remote commander RM-W3000<br>RS-232C interface manual LDM-5000 |
| Optional accessories: | Laser VideoDisc media LVM-3AA0<br>Programmable remote controller RM-9000PR<br>Rack mount kit RMM-7000A<br>36-pin control cable (1.5m) RCC-5000<br>VideoDisc cleaning kit WOA-D11 |

## Specifications

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 82W |
| Operating temperature: | 5°C to 35°C (41°F to 95°F) |
| Storage temperature: | –20°C to 60°C (–4°F to 140°F) |
| Humidity: | 20 to 80% |
| Mass: | 22kg (48 lb 8 oz) |
| Dimensions: | 424(W) × 214(H) × 568(D)mm<br>($16^3/_4 \times 8^1/_2 \times 22^3/_8$ inches) |

**Recording/playback system**

| | |
|---|---|
| Recording mechanism: | Alloy mode |
| Laser: | Semiconductor diode laser (l:780 nm) |
| Laser output: | 17 mW |
| VideoDisc: | 12-inch (300 mm) |
| Maximum playback/recording time and frames: | |
| | 24 min. 10 sec./side,<br>525 lines: 43,500 frames per side<br>625 lines: 36,250 frames per side |
| Spindle speed: | 525 lines: 1800 r/min<br>624 lines: 1500 r/min |
| Access time: | 0.5 sec. (full stroke average) |
| Variable speed playback: | 1/255 to 3 times normal speed in forward and reverse directions plus still |

**Video**

| | |
|---|---|
| Signal: | EIA standard: 525 lines<br>CCIR standard: 625 lines |
| Inputs | |
| Video: | 1.0 Vp-p, 75Ω, unbalanced, sync negative (BNC, loop through) |
| Ref. video: | 1.0 Vp-p, 75Ω, unbalanced, sync negative (BNC, loop through) |
| Outputs | |
| Video: | 1.0 Vp-p, 75Ω, unbalanced, sync negative (BNC) |
| Ref. video: | 1.0 Vp-p, 75Ω, unbalanced, sync negative (BNC) |
| Bandwidth (luminance): | 6.7MHz |
| Signal-to-noise ratio: | 48dB (typical) |

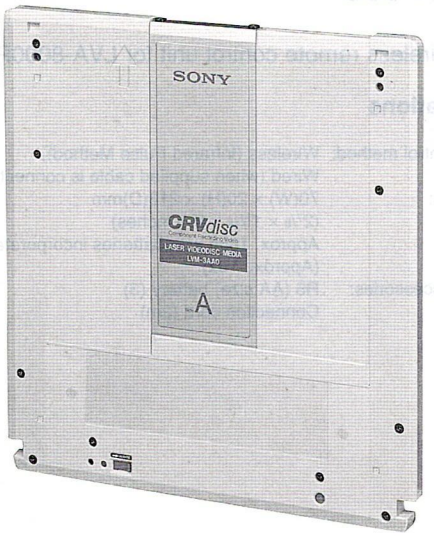
**External control interface**

| | |
|---|---|
| Interface: | RS-232C: 25-pin |
| Protocol: | RS-232C: Compatible with Sony LVA and LDP series |

## LVM-3AA0

### Writable Laser VideoDisc media

•Write-once optical disc media for Laser VideoDisc recording •Long-term storage •Large storage capacity; 36,250 still frames or 24 minutes of moving pictures per side in PAL, 43,500 still frames or 24 minutes of moving pictures per side in NTSC




### Specifications

| | |
|---|---|
| Cartridge Dimensions: | 325(W) × 345(H) × 16(D)mm ($12^{7}/_{8} \times 13^{5}/_{8} \times 2^{1}/_{32}$ inches) |
| Mass: | 980g (2 lb 3 oz) |



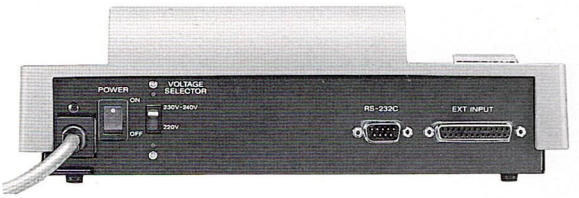
## RM-9000PR

### Programmable remote controller

•Controls playback operation of LVR/LVA/LDP series Laser VideoDisc products via the RS-232C interface •Creates up to eight customized operational programmes •Requires neither special skills nor computer knowledge for programming •Auto repeat/Auto Play capability •Removable RMI-9000 memory card to store up to eight operational programmes created on the RM-9000PR
•D-sub 25-pin interface connector for connection to custom made control device

*When used with the LDP series, the RM-9000PR can create operational programmes effective for frame operation in the CAV mode.

| | |
|---|---|
| Supplied accessories: | Operation manual<br>IC memory card (1 piece) RMI-9000<br>RS-232C cross cable SMF-3036C (D-sub 9-pin/D-sub 25-pin)<br>Lithium battery (1 piece) CR-2016 |
| Optional accessory: | IC memory card (1 piece) RMI-9000 |




### Specifications

| | |
|---|---|
| Power requirements: | AC 220 or AC 230 to 240V (switch selectable), 50Hz |
| Power consumption: | 4.5W |
| Operating temperature: | 5 to 35°C (41 to 95°F) |
| Storage temperature | -20 to 60°C (-4 to 140°F) |
| Humidity: | 25% to 80% |
| Dimensions: | Approx. 280 (W) × 88 (H) × 210 (D)mm ($1^{1}/_{8} \times 3^{1}/_{4} \times 8^{3}/_{8}$ inches) |
| Mass: | 2.2kg (4 lb 13 oz) |
| Interface: | RS-232C (D-sub 9-pin), compatible with Sony LVR, LVA and LDP series<br>External Input Terminal (D-sub 25-pin) |

## RM-W7000

•Wired/wireless remote control unit for LVA-8000P and LVA-4500P

### Specifications

| | |
|---|---|
| Remote control method: | Wireless (Infrared Pulse Method),<br>Wired (when supplied cable is connected) |
| Dimensions: | 70(W) × 20(H) × 210(D)mm<br>($2^{7}/_{8} \times 1^{3}/_{16} \times 8^{3}/_{8}$ inches) |
| Mass: | Approx. 185g with batteries incorporated<br>(Approx. 7 oz) |
| Supplied accessories: | R6 (AA size) battery (3)<br>Connection cord (2m) |

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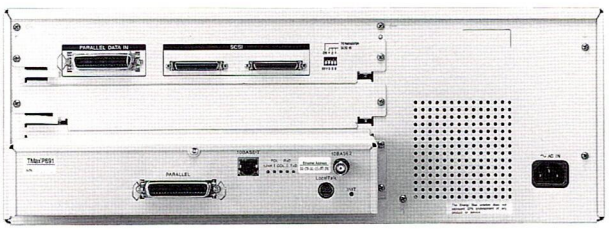
# UP-D8800

## Digital colour printer

•State-of-the-art quality and high speed digital colour printing with 300dpi •256 gradations and over 16 million colour reproduction per pixel •A4 size print (210 × 297mm/8 3/8 × 11 3/4 inches) in approx. 85 seconds (Approx. 55 seconds in the 150 dpi print mode) •Provides superb bit-map printing through a SCSI and Centronics interface facility with the optional UPK-8802RT SCSI and Centronics interface board •Provides PostScript® printing through multiple interface facilities with the optional P891 Colour Connectivity Controller •Full-bleed A4 size (215.9 × 297mm/8 1/2 × 11 3/4 inches) image printing •A wide range of optional accessories including printer driver software, add-on memory, for easy system expansion




UP-D8800 with UPK-8802RT and P891

Supplied accessories:
- Ink Ribbon Holder
- Paper Tray
- Paper Cover
- AC Power Cable
- Operation Manual

Optional accessories:
- Raster interface kit UPK-8802RT
- Add-on memory kit UPK-8801
- NeWSprint printer driver for SUN Sparc WS UPS-8801N
- Printer driver software UPS-8802S
- Colour connectivity controller P891*
- A4 size colour print pack UPC-8810
- A4 size B&W print pack UPC-8820
- A4 size OHP transparencey print pack UPC-8830
- A4 Size Seif-laminating colour print pack UPC-8840
- Full-bleed A4 size colour print pack UPC-8817

## Specifications

| | | |
|---|---|---|
| Printing Method: | Dye transfer sublimation thermal | |
| Resolution: | 300dpi or 150dpi selectable | |
| Gradations: | 256 levels each for YMC<br>(16.7 million colours per dot) | |
| Effective Print Pixels: | A4 Size: | 300dpi; 2,400 × 3,208 dots<br>150dpi; 1,200 × 1,604 dots |
| | A4 Plus Size: | 300dpi; 2,550 × 3,508 dots<br>150dpi; 1,275 × 1,754 dots |
| Print Area: | A4 Size: | 203.2 × 271.6 mm<br>(8 × 10 3/4 inches) |
| | A4 Plus Size: | 215.9 × 297 mm<br>(8 1/2 × 11 7/8 inches) |
| Paper Area: | A4 Size: | 210 × 297 mm<br>(8 3/8 × 11 3/4 inches) |
| | A4 Plus Size: | 222 × 322.4 mm<br>(8 7/8 × 12 3/4 inches) |
| Print Area: | Max. 215.9 × 297mm (8 1/2 × 11 7/8 inches) | |
| Paper Size: | 210 × 297mm (8 3/8 × 11 3/4 inches) - using the optional UPC-8810<br>222 × 322.4mm (8 7/8 × 12 3/4 inches) - using the optional Full-bleed A4 size paper | |
| Picture Memory: | Up to 30MB (with the optional UPK-8802RT and the UPK-8801)<br>32MB (with the optional P891) | |
| Printing Time: | A4 Size: | 300dpi; 85 sec.<br>150dpi; 55 sec. |
| | Laminating: | 300dpi; 115 sec.<br>150dpi; 85 sec |
| | OHP: | 300dpi; 130 sec.<br>150dpi; 60 sec |
| | A4 Plus Size: | 300dpi; 90 sec.<br>150dpi; 60 sec |
| Paper Tray Capacity: | 100 sheets | |
| Interface: | SCSI and Centronics (with the optional UPK-8802RT)<br>Centronics, TCP/IP, NetWare and EtherTalk (with the optional P891) | |
| Input Data Format: | RGB<br>RGB (with UPK-8802RT)<br>PostScript (with P891) | |
| Power Requirements: | AC220 to 240V, 50/60Hz | |
| Power Consumption: | Max. 260W<br>Less than 30W (Stand-by mode, with the optional UPK-8802RT and the UPK-8801) | |
| Dimensions: | 493.8(W) × 189(H) × 468.8(D)mm<br>(19 1/2 × 7 1/2 × 18 1/2 inches) | |
| Mass: | Approx. 18kg (39 lb 10 oz) | |
| Safety Standards: | IEC 950 | |

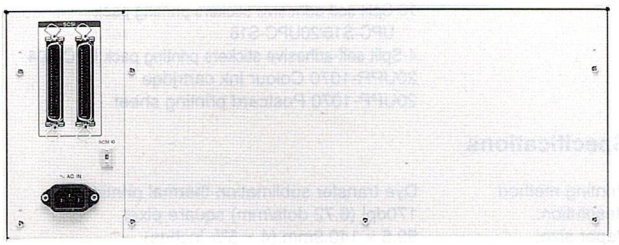
*The P891 is not available in some areas. For futher details, please consult your nearest Sony office.

# UP-D6600

## Digital Colour Printer

•Superb quality digital colour printer for ID card production •In-line magnetic encoding capability with the optional UPA-6600 Magnetic Encoder •High resolution of 300dpi and over 16 million colour reproduction for clear image and text printing •256/128 gradation mode selectable •High speed thermal lamination process - 70s in 256 gradation mode/40s in 128 gradation mode •SCSI interface for direct connection to a versatile PCs •Use of ISO 7810 PVC card •Holds up to 100 cards in supplied card magazine •Semi-transparent front panel to check unit operation •An LED display for indicating operating status and error such as jamming

UP-D6600 (right) with UPA-6600 (left)



Supplied accessories:
- AC Power Cable
- Operation Manual
- Card Magazine (for 100 cards)
- Card Tray (for 100 printed cards)
- Cleaning Roller
- Ink Ribbon Holder
- SCSI Terminator

Optional accessories:
- Magnetic Encoder UPA-6600
- Colour Ink Ribbon (YMCL) 250 prints × 5rolls 5UPR-6040
- Color Ink Ribbon (YMCKL) 200 prints × 5rolls 5UPR-6080
- Black and White Ribbon (K) Approx 1000 prints × 1roll UPR-6025

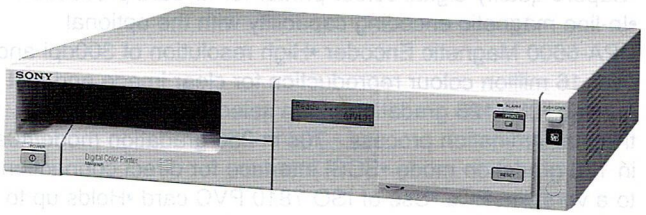
### Specifications

| | |
|---|---|
| Printing Method: | Dye transfer sublimation thermal |
| Resolution: | 300dpi |
| Gradations: | 128 levels - Normal Mode<br>256 levels - High Quality Mode |
| Effective Print Pixels: | 590 × 965 dots (2mm border from edge) |
| Card Size: | ISO-7810 ID-1<br>53.98 × 85.73mm ($2^1/_8 \times 3^3/_8$ inches) |
| Card Thickness: | 27 to 34mil (0.6858 to 0.8636mm) |
| Card Holder Capacity: | 100 cards |
| Ribbon: | Yellow, Magenta, Cyan and Laminate, for max. 250 images |
| Printing Time: | Approx. 40s - Normal mode<br>Approx. 70s - High Quality print mode |
| Interface: | SCSI |
| Card Supply: | Detachable Cards Magazine (100 cards) |
| Card Stack: | Free Fall Card Tray (100 cards) |
| Power Requirements: | AC220 to 240V, 50/60Hz |
| Power Consumption: | Approx. 100W |
| Dimensions: | 502(W) × 200(H) × 344(D)mm (without including the supplied card holder)<br>($19^7/_8 \times 7^7/_8 \times 13^5/_8$ inches) |
| Mass: | Approx. 17.1kg (37 lb 2 oz) |
| Safety Standards: | EN60950 |
| EMC Regulations: | EN50081-1 (1992) EN50082-1 (1992) |

# UP-D1510CNE

## Digital colour printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •A6 size print (140 × 100mm/5⅝ × 4 inches) in approx. 70 seconds •Easy-to-use operation with function menu display on the built-in LCD •Up to 100 consecutive printing •Conforms to the Centronics standard for direct connection to equipment such as a computer and electronic microscope



Supplied accessories:
- Colour printing pack (for 25 sheets)
- Driver software for Windows 3.1/Windows 95 and Macintosh
- Operating manual
- AC power cable

Optional accessories:
- Serial-Parallel conversion between UP-D1510CNE and local talk of Macintosh
- VP Series colour printing pack UPC-1010/20UPC-1010
- VP Series black & white printing pack UPC-1020
- Lamination printing pack 5UPC-1040A
- 16-Split self-adhesive stickers printing pack UPC-S16/20UPC-S16
- 4-Split self-adhesive stickers printing pack UPC-S04
- 20UPR-1070 Colour ink cartridqe
- 20UPP-1070 Postcard printing sheet

### Specifications

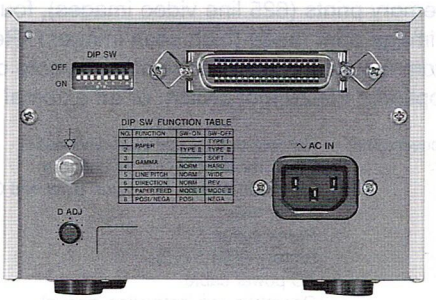
| | |
|---|---|
| Printing method: | Dye transfer sublimation thermal printing |
| Resolution: | 170dpi (6.72 dots/mm) square pixel |
| Paper size: | 99.6 × 140.9mm (4 × 5⅝ inches) |
| Picture size: | 91.8 × 119.2mm (3⅝ × 4¾ inches) |
| Picture elements: | 616 × 800 pixels |
| Gradations: | 256 levels process (yellow, magenta, cyan) over 16 million colours per pixel |
| Picture memory: | 1.5MB |
| Printing time: | Approx. 70s |
| Input data format: | RGB |
| Interface: | Centronics |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Approx. 200VA |
| Dimensions: | 424(W) × 91(H) × 397(D)mm (16¾ × 3⅝ × 16⅜ inches) |
| Mass: | Approx. 8.5kg (18 lb 12 oz) |
| Safety standard: | EN60450 |
| EMC ragulation: | EN50081-1+EN50082-1 |

# UP-D860E

## Digital graphic printer

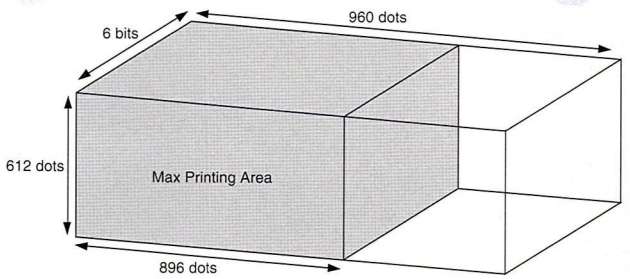
•Monochrome digital graphic printer with 896 picture element dots (horizontally) and 64 steps of gradation •A fast printing speed of less than four seconds •Compact (154 × 106 × 300mm/6 1/8 × 4 1/4 × 11 7/8 inches) and lightweight (3.6kg/7 lb 15 oz) •Conforms to the Centronics standard for direct connection to equipment such as a computer and electronic microscope •Printing paper selectable from UPP-110HD high density type or the UPP-110S normal type thermal paper •Three gradations, selectable; Soft, Standard and Hard when using the UPP-110HD high density thermal paper •6:7/1:1 pixel ratio selectable •Positive or negative printing, Normal or reverse direction printing selectable •Easy paper loading selectable •Thermal head protection

| | |
|---|---|
| Supplied accessories: | AC power cable<br>Paper roll UPP-110HD (×1)<br>Head cleaning sheet<br>Operation manual |
| Optional accessories: | Printing paper UPP-110S<br>High density printing paper UPP-110HD |




## Specifications

| | |
|---|---|
| Thermal head: | Thin film thermal head<br>896 dots drive |
| Gradation: | 64 gray levels<br>(6-bit internal process, without dithering) |
| Memory configuration: | |

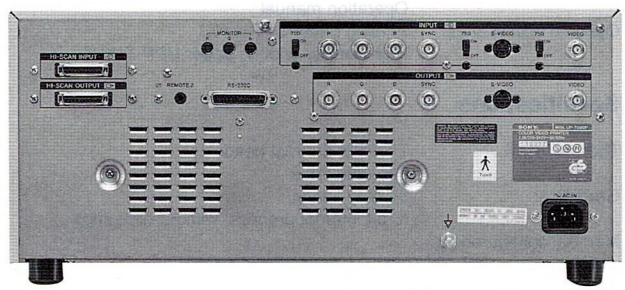



| | |
|---|---|
| Printed picture size: | 100.3(H) × 69(V)mm (4 × 2 3/4 inches) |
| Printing speed: | Approx. 4.0 s/print |
| Picture elements: | 896(H) × 612(V) dots |
| Dots density: | H: 896/100.3=8.9 dots/mm<br>V: 612/69=8.9 dots/mm |
| Interface connector: | Centronics standard, 8-bit parallel,<br>TTL level, 36-pin Amphenol type |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Max. 1.0A |
| Dimensions: | 154(W) × 106(H) × 300(D)mm<br>(6 1/8 × 4 1/4 × 11 7/8 inches) |
| Mass: | Approx. 3.6kg (7 lb 15 oz) |

# UP-7300MDP

## Colour video printer

•High quality full colour print with digital process in the frame memory in 8-bit/256 gradations, and over 16 million colours per pixel •Its thermal head, with 1280 picture element dots, reproduces a high quality output with a resolution of 6.4 dots/mm •A4 size print (210 × 297mm/ $8^3/_8 \times 11^3/_4$ inches) in approx. 125 seconds and a black and white image in approx. 60 seconds •OHP transparency prints for effective presentations •Multiscan capability; inputs over a wide range of horizontal scanning frequencies- 15kHz to 89kHz- is acceptable •Multiple inputs; four BNC connectors for 625 analogue RGB signal input, DIN 4-pin for Y/C input and a BNC connector for PAL composite signal input, and DN 50-pin multiple connector for analogue RGB high scan signal for connection with variety of computers and HDVS with optional cables •Menu operation with the function menu displayed on the printer's LCD and on an associated monitor •Set-up menu; horizontal and vertical picture size, H/V picture shift, aspect ratio, etc. •Up to 20 copies of consective printing capable •Various print modes; two, four, six, eight or sixteen different or duplicated image memory prints (625 line video images), four or six different image print mode (high scan images) •Remote control from a supplied wired or wireless remote control unit, an optional FS-20 foot switch, or an extemal PC




Supplied accessories:
- Remote control unit (wired/wireless)
- Cable for remote control unit (5m)
- Ink ribbon holders for colour, B&W and OHP materials
- Paper tray
- Paper cover
- Battery SUM-3 (×2)
- AC power cable
- Operation and instruction manual

Optional Accessories
- Colour print pack UPC-7010P (for 100 prints)
- Black and white print pack UPC-7020 (for 100 prints)
- OHP print pack UPC-7030 (for 100 prints)
- Foot switch FS-20
- RS-232C cross cable SMF-1015
- Video interface cable for Macintosh UPZ-7000M
- Video interface cable for IBM PS55, PS/2, PS/V UPZ-7000I
- Interface cable for workstation UPZ-7001, UPZ-7002, UPZ-7003

## Specifications

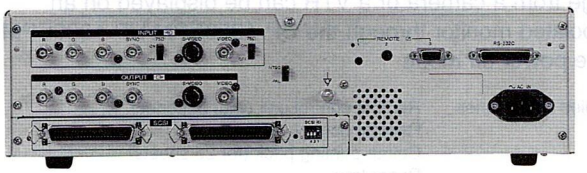
| | |
|---|---|
| Printing method: | Dye transfer sublimation thermal printing |
| Thermal head: | 1280 elements (6.4 dots/mm) |
| Printing paper size: | A4 (210 × 297 mm$8^3/_8 \times 11^3/_4$ inches) using the optional UPC-7010P |
| Picture size: | <625/50 line signal><br>Max. 184 × 241mm ($7^1/_4 \times 9\ ^1/_2$ inches)<br><Hi-scan signal><br>Max. 190 × 246mm ($7^1/_2 \times 9^3/_4$ inches) |
| Gradations: | 256 levels process (Yellow, Magenta, Cyan) over 16 million colours per pixel |
| Scanning frequency: | 15kHz to 89kHz |
| Picture memory: | Six frame memories (9MB) |
| Printing time: | Approx. 125 seconds - Colour, Macintosh II print<br>Approx. 60 seconds - B & W print |
| Input: | RGB analogue for Hi-Scan or HDVS signal*(DN 50-pin)<br>RGB: 0.7Vp-p, 75Ω<br>Sync: 1.0 to 5.0Vp-p, 75Ω<br>RGB analogue (625 line system) signal* (BNC ×4)<br>RGB: 0.7Vp-p, 75Ω, unbalanced<br>Sync: 0.3 to 4.0Vp-p, negative, 75Ω, unbalanced<br>S-Video (Y/C separate, DIN 4-pin S terminal)<br>Y: 0.5 to 2.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>Composite video (BNC)<br>CCIR/PAL 0.5 to 2.0Vp-p, sync negative, 75Ω, unbalanced |
| Output: | RGB analogue for Hi-Scan or HDVS signal (DN 50-pin)*<br>RGB: 0.7Vp-p, 75Ω<br>Sync: Through output<br>RGB analogue signal (625 line scan) (BNC ×4)<br>RGB: 0.7Vp-p, 75Ω, unbalanced<br>Sync: 1.0Vp-p, negative, 75Ω, unbalanced<br>S-Video (Y/C separate, DIN 4-pin S terminal)<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>Composite video (BNC)<br>CCIR/PAL 1.0Vp-p, sync negative, 75Ω, unbalanced |
| Control terminal: | RS-232C (D-sub 25-pin)<br>REMOTE 1: Remote control jack (special mini)<br>REMOTE 2: Foot switch jack (stereo mini) |
| Power requirement: | AC 200 to 240V, 50/60Hz |
| Power consumption: | 290W |
| Dimensions: | 424(W) × 177(H) × 490(D)mm ($16^3/_4 \times 7 \times 19^3/_8$ inches) |
| Mass: | Approx. 19.2kg (42 lb) |
| Safety regulations: | IEC 950, IEC 601-1, BZT |

* Note: The UP-7300MDP can accept sync-on-G or external sync automatically.

# UP-5600MDP

## Colour video printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •A thermal head with 2048 elements assures high quality output with a resolution of 300 dots per inch •Four frame memories (Eight frame memory is possible with optional UPK-5500 frame memory board) •A5 size print (210× 148mm/$8^3/_8 \times 5^7/_8$ inches) in approx. 34 seconds •Easy-to-use menu operation with function menu display on the printer's LCD and on an associated monitor •Worldwide use (accepts CCIR/PAL video, EIA/NTSC video, 625 analogue RGB, 525 analogue RGB) •Multiple video inputs; analogue RGB, Y/C and composite video •Remote control operation from optional wired/wireless remote control units RM-5500/91 and foot switch FS-20/30 •RS-232C port for external remote control from a PC •Full colour digital printing is possible using the optional SCSI interface board UPK- 5502SC which includes A/D and D/A conversion function and printer driver software •Multiple printing modes; 2,4,8 or 16 split print, 2,4,8 or 16 duplicate image print, composite print •Up to 80 characters of caption setting •The input image from a camera or a VTR can be displayed on an assosiated monitor looping through the UP-5600MDP in the power off mode •User-friendly operational design



UP-5600MDP with UPK-5502SC

| | |
|---|---|
| Supplied accessories: | AC power cable<br>Colour print pack (for 20 prints)<br>Paper tray<br>Paper cover<br>Ink ribbon holder<br>Operation manual |
| Optional accessories: | Four frame memory board UPK-5500<br>Digital interface board UPK-5502SC<br>Wired/Wireless remote commander RM-5500<br>Remote control unit RM-91<br>Foot switch FS-30<br>Foot switch FS-20<br>Colour printing pack UPC-5510/5UPC-5510*<br>Colour printing pack UPC-5510C<br>Cassette for UPC-5510/5UPC-5510 UPC-5500<br>OHP transparency printing pack UPC-5530 |

*The UPC-5510/5UPC-5510 is not supplied with a cassette.

## Specifications

| | |
|---|---|
| Printing method: | Dye transfer sublimation thermal printing |
| Thermal head: | 6.72 dots/mm (300dpi dots) |
| Printing paper size: | 148 × 210mm ($5^7/_8 \times 8^3/_8$ inches) |
| Picture size: | 124.8 × 165.1mm (5 × $6^1/_2$ inches) - PAL Full Print Mode<br>125.8 × 165.1mm (5 × $6^1/_2$ inches) - NTSC Full Print Mode<br>132.1 × 176.1mm ($5^1/_4$ × 7 inches) - Digital Printing (with optional UPK-5502SC) |
| Picture elements: | 1176 lines × 1920 dots - PAL Full Print Mode<br>976 lines × 1920 dots - NTSC Full Print Mode<br>1536 lines × 2048 dots - Digital Printing (with optional UPK-5502SC) |
| Gradations: | 256 levels process (Yellow, Magenta, Cyan)<br>Over 16 million colours per pixel |
| Picture memory: | 4 frame memories, 2048 × 1024 × 8 bits × 3 (6MB)<br>8 frame memories with optional UPK-5500, 2048 × 2048 × 8 bits × 3 (12MB) |
| Printing time: | Approx. 34s - PAL Full Size Print Mode<br>Approx. 30s - NTSC Full Size Print Mode<br>Approx. 38s - Digital printing with optional UPK-5502SC |
| Input: | 625 or 525 RGB analogue* (BNC × 4, R/G/B/Sync)<br>RGB: 0.7Vp-p, 75Ω, unbalanced<br>Sync: 0.3 to 4.0Vp-p, sync negative, 75Ω, unbalanced<br>S-Video (Y/C Separate, 4-pin S terminal)<br>CCIR/PAL<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>EIA/NTSC<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.286Vp-p, 75Ω, unbalanced<br>Composite video (BNC)<br>CCIR/PAL or EIA/NTSC 1.0Vp-p, sync negative, 75Ω, unbalanced** |
| Output: | 625 or 525 RGB analogue* (BNC × 4, R/G/B/Sync )<br>RGB: 0.7Vp-p, 75Ω, unbalanced<br>Sync: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>S-Video (Y/C Separate, 4-pin S terminal)<br>CCIR/PAL<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>EIA/NTSC<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.286Vp-p, 75Ω, unbalanced<br>Composite video (BNC)<br>CCIR/PAL or EIA/NTSC 1.0Vp-p, sync negative, 75Ω, unbalanced** |
| Interface: | (with optional UPK-5502SC)<br>SCSI 1 channel<br>50-pin amphenol (×2) |
| Control terminal: | Remote control jack (Special mini) for optional RM-5500<br>Foot switch-1 (stereo mini) for optional FS-20<br>Foot switch-2 (D-sub 9-pin) for optional FS-30<br>RS-232C interface port (D-sub 25-pin) |
| Power requirement: | AC220V to 240V, 50/60Hz |
| Power consumption: | Max. 1.2A |
| Dimensions: | 424(W) × 125(H) × 475(D)mm ($16^3/_4 \times 5 \times 18^3/_4$ inches) |
| Mass: | 14kg (30 lb 14oz) |
| Safety regulations: | EN60601-1 (TÜV) |
| EMI regulations: | EMC Directive |

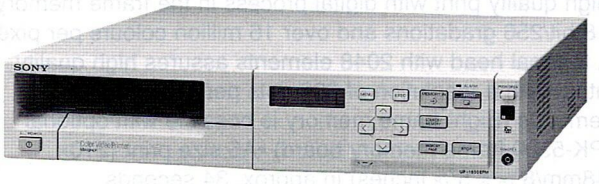
Note:

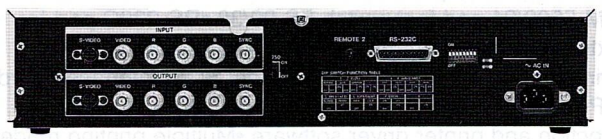
*The UP-5600MDP can accept sync-on-G or external sync automatically.
** CCIR/PAL or EIA/NTSC signals are selected using the input selector on the unit's rear panel.

# UP-1850EPM/UP-1800EPM

## Colour video printer

•UP-1800EPM: one frame memory, UP-1850EPM: three frame memories •High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •More than 500TV lines of horizontal resolution •A6 size print (140 × 100mm/5⅝ × 4 inches) in approx. 60 seconds •Easy-to-use operation with function menu display on the built-in LCD or the associated monitor •Remote control function by an optional foot switch FS-20/36, remote control unit RM-91 or an external computer via an RS-232C interface •Multiple video input: analogue RGB, Y/C and composite video •Up to 100 consecutive printing capability •Up to 128 characters for caption setting •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-1850EPM/UP-1800EPM in the power off mode




| | |
|---|---|
| Supplied accessories: | Remote control unit (with batteries)<br>Remote control cable (5m)<br>Colour printing pack (for 25 sheets)<br>Paper tray<br>Print tray<br>Operation manual<br>AC power cable |
| Optional accessories: | Colour printing pack UPC-1010/20UPC-1010<br>Black & white printing pack UPC-1020<br>Self-Laminating printing pack 5UPC-1040A<br>16-Split self-adhesive stickers printing pack UPC-S16/20UPC-S16<br>4-Split self-adhesive stickers printing pack UPC-S04<br>20UPR-1070 Colour ink cartridge<br>20UPP-1070 Post card printing sheet<br>Simple remote controller RM-91<br>Foot switch FS-20/36 |

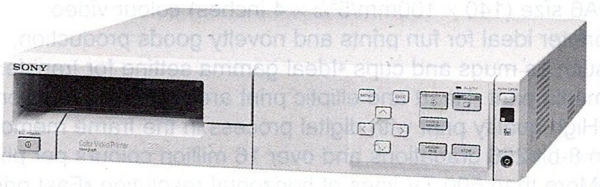
## Specifications

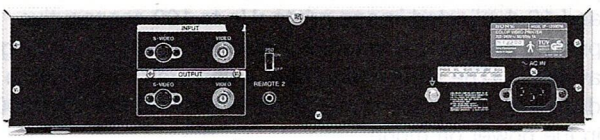
| | |
|---|---|
| Printing method: | Dye transfer sublimation thermal printing |
| Thermal head: | 608 elements (6.72 dots/mm) |
| Printing paper size: | 140 × 100mm (5⅝ × 4 inches) |
| Picture size: | Max. 119.2 × 86.9mm (4¾ × 3½ inches) |
| Picture elements: | Max. 772 × 584 dots |
| Printed picture size: | Max. 119.2 × 86.9 mm |
| Gradations: | 256 levels process (yellow, magenta, cyan)<br>over 16 million colours per pixel |
| Picture memory: | UP-1800EPM: One frame memory<br>(R, G, B, three channels), 8bits<br>UP-1850EPM: Three frame memories<br>(R, G, B, threechannels), 8bits |
| Printing time: | Approx. 60s |
| Inputs: | RGB analogue: BNC (×4), R, G, B, Sync<br>RGB; 0.7Vp-p, 75Ω, unbalanced<br>Sync; 0.2 to 4.0Vp-p, negative, 75Ω, unbalanced<br>Y/C separate: Mini DIN 4-pin<br>Y; 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C; 0.3Vp-p, 75Ω, unbalanced<br>Composite video: BNC<br>CCIR/PAL 1.0Vp-p, sync negative,<br>75Ω, unbalanced |
| Outputs: | RGB analogue: BNC (×4), R, G, B, Sync<br>RGB; 0.7Vp-p, 75Ω, unbalanced<br>Sync; 1.0Vp-p, negative, 75Ω, unbalanced<br>Y/C separate: Mini DIN 4-pin<br>Y; 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C; 0.3Vp-p, 75Ω, unbalanced<br>Composite video: BNC,<br>CCIR/PAL 1.0Vp-p, sync negative,<br>75Ω, unbalanced |
| Control terminal: | Remote 1: Special mini, for supplied remote controller<br>Remote 2: Stereo mini, for optional foot switch FS-20/36 or simple remote controller RM-91<br>RS-232C: D-sub 25-pin |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Approx. 1.0A |
| Dimensions: | 424(W) × 91(H) × 413(D)mm<br>(16¾ × 3⅝ × 16⅜ inches) |
| Mass: | Approx. 8.5kg (18 lb 12 oz) |

# UP-1200AEPM

## Colour video printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •More than 500TV lines of horizontal resolution •A6 size print (140 × 100mm/5⅝ × 4 inches) in approx. 60 seconds •Easy-to-use operation with function menu display on an associated monitor •Remote control function by a supplied remote controller, an optional foot switch FS-20/36, or remote control unit RM-91 •Video input of Y/C and composite video available •Up to 100 consecutive printing capability •Up to 60 characters of caption setting available •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-1200AEPM in the power off mode




| | |
|---|---|
| Supplied accessories: | Remote control unit (with batteries)<br>Remote control cable (5m)<br>Colour printing pack (for 25 copies)<br>Paper tray<br>Print tray<br>Operation manual<br>AC power cable |
| Optional accessories: | Colour printing pack UPC-1010/20UPC-1010<br>Black & white printing pack UPC-1020<br>Self-Laminating printing pack 5UPC-1040A<br>16-Split self-adhesive stickers printing pack UPC-S16/20UPC-S16<br>4-Split self-adhesive stickers printing pack UPC-S04<br>Colour ink cartridge 20UPR-1070<br>Post card printing sheet 20UPP-1070<br>Simple remote controller RM-91<br>Foot switch FS-20/36 |

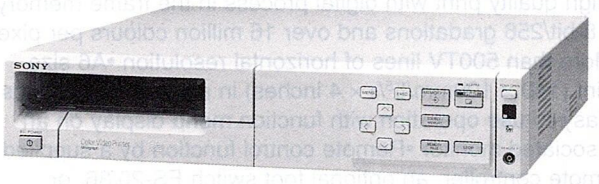
## Specifications

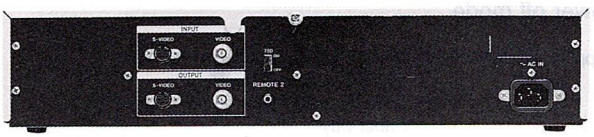
| | |
|---|---|
| Printing method: | Dye transfer sublimation thermal printing |
| Thermal head: | 608 elements (6.72 dots/mm) |
| Printing paper size: | 140 × 100mm (5⅝ × 4 inches) |
| Picture size: | Max. 119.2 × 86.9mm (4¾ × 3½ inches) |
| Picture elements: | Max. 772 × 584 dots |
| Gradations: | 256 levels process (yellow, magenta, cyan)<br>over 16 million colours per pixel |
| Picture memory: | One frame memory (R, G, B, three channels), 8bit |
| Printing time: | Approx. 60s |
| Inputs: | Y/C separate: Mini DIN 4-pin<br>Y; 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C; 0.3Vp-p, 75Ω, unbalanced<br>Composite video: BNC<br>CCIR/PAL 1.0Vp-p, sync negative,<br>75Ω, unbalanced |
| Outputs: | Y/C separate: Mini DIN 4-pin<br>Y; 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C; 0.3Vp-p, 75Ω, unbalanced<br>Composite video: BNC<br>CCIR/PAL 1.0Vp-p, sync negative,<br>75Ω, unbalanced |
| Control terminal: | Remote 1: Special mini, for supplied remote controller<br>Remote 2: Stereo mini, for optional foot switch FS-20/36<br>or simple remote controller RM-91 |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Approx. 1.0A |
| Dimensions: | 424(W) × 91(H) × 413(D)mm<br>(16¾ × 3⅝ × 16⅜ inches) |
| Mass: | Approx. 8.5kg (18 lb 12 oz) |

## UP-1200RP

### Colour video printer

•A6 size (140 × 100mm/5⅝ × 4 inches) colour video printer ideal for fun prints and novelty goods production, such as mugs and cups •Ideal gamma setting for transfer media print •Heart and elliptic print area trimming function •High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •More than 500 TV lines of horizontal resolution •Fast print speed at approx. 60 seconds •Easy-to-use operation with function menu display on an associated monitor •Remote control function by a supplied remote controller, an optional foot switch FS-20/36, or remote control unit RM-91 •Multiple print modes include wide, normal, narrow, small, mirror, four and 16 duplicated image prints •Up to 100 consecutive printing capability •Up to 60 characters of caption setting available •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-1200RP in the power off mode




| | |
|---|---|
| Supplied accessories: | Remote control unit (with a battery)<br>Remote control cable (5m)<br>Paper tray<br>Operating manual<br>AC power cable |
| Optional accessories: | Colour transfer print pack 10APU-10T<br>Simple remote controller RM-91<br>Foot switch FS-20/36 |

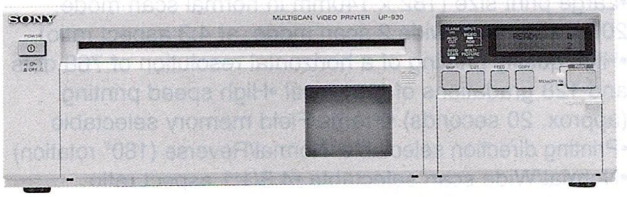
### Specifications

| | |
|---|---|
| Printing method: | Dye transfer sublimation thermal printing |
| Thermal head: | 608 elements (6.72 dots/mm) |
| Printing paper size: | 140 × 100mm (5⅝ × 4 inches) |
| Picture size: | Max. 118.6 × 89.7mm (4¾ × 3⅝ inches) |
| Picture elements: | Max. 772 × 584 dots |
| Gradations: | 256 levels process (yellow, magenta, cyan)<br>over 16 million colours per pixel |
| Picture memory: | One frame (R, G, B, three channels) |
| Printing time: | Approx. 60s |
| Inputs: | Y/C separate: Mini DIN 4-pin<br>Y; 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C; 0.3Vp-p, 75Ω, unbalanced<br>Composite video: BNC<br>CCIR/PAL 1.0Vp-p, sync negative,<br>75Ω, unbalanced |
| Outputs: | Y/C separate: Mini DIN 4-pin<br>Y; 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C; 0.3Vp-p, 75Ω, unbalanced<br>Composite video: BNC<br>CCIR/PAL 1.0Vp-p, sync negative,<br>75Ω, unbalanced |
| Control terminal: | Remote control jack: Stereo mini |
| Power requirements: | AC 108 to 132V or AC 220 to 240V, 50/60Hz |
| Power consumption: | Approx. 130W |
| Dimensions: | 424(W) × 90.7(H) × 412.5(D)mm<br>(16¾ × 3⅝ × 16¼ inches) |
| Mass: | Approx. 8.5kg (18 lb 12 oz) |

# UP-930 (CCIR/EIA)

## Monochrome multiscan video printer

•Multiscan capability (max. scanning rate: approx. 50kHz) •Large print size (CCIR standard: 240 × 178mm at side direction print mode, 190 × 141mm at normal direction print mode) •Multiple print modes (up to four split pictures) •128 gradations of gray level by 7-bit digital processing •Two types of input video signals: Composite video (BNC) and RGB analogue or TTL (D-sub 15-pin) •Scan adjust function (Scanning size and aspect ratio) •Selectable printing direction (Normal/Reverse—180° rotation/Side—90° rotation) •Auto paper cut function •RS-232C interface for an external computer control •Medical safety regulation (IEC 950 approved)



| | |
|---|---|
| Supplied accessories: | AC power cable<br>Printing paper UPP-216HD (1)<br>Paper shaft<br>Head cleaning sheet<br>BNC-BNC connecting cable (1.5 m)<br>Operation manual |
| Optional accessories: | RGB cable SMF-3005<br>Video interface cable for IBM PS/2 UPZ-930I<br>Video interface cable for Apple Macintosh UPZ-930M<br>Foot switch FS-20<br>Remote control unit RM-91<br>High density printing paper UPP-216HD<br>Normal density printing paper UPP-216SE |

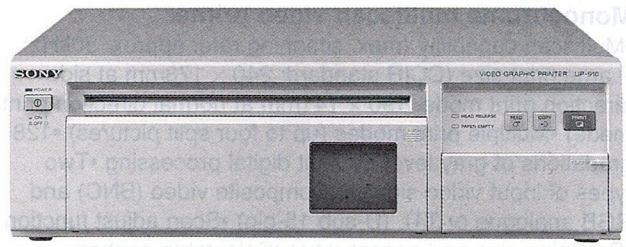
### Specifications

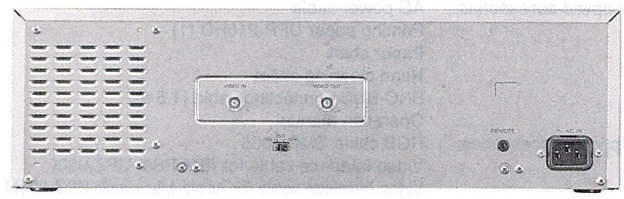
| | |
|---|---|
| Printing method: | Direct thermal printing |
| Thermal head: | Thin-film thermal head, 1280-dot drive (× 2) |
| Picture size: | Normal direction: |
| (at aspect ratio 4:3) | 190 × 141mm ($7^1/_2 \times 5^5/_8$ inches) (EIA)<br>190 × 141mm ($7^1/_2 \times 5^5/_8$ inches) (CCIR) |
| | Side direction: |
| | 200 × 149mm ($7^7/_8 \times 5^7/_8$ inches) (EIA)<br>240 × 178mm ($9^1/_2 \times 7^1/_8$ inches) (CCIR) |
| Picture elements: | 1216 dots × 478 lines (EIA)<br>1216 dots × 570 lines (CCIR) |
| Gradations: | 128 (black and white) |
| Picture memory: | 2Mbytes |
| Printing time: | Approx. 20 s/screen (EIA)<br>Approx. 23 s/screen (CCIR) |
| Input terminal: | Video In (BNC)<br>Composite video signals 1.0Vp-p, 75Ω/high-impedance<br>RGB In (D-sub 15-pin)<br>Composite sync/Separate sync/Sync on G, 0.7Vp-p (analogue)/5Vp-p (TTL), 75Ω/high-impedance |
| Output terminal: | Video Out (BNC): Loop-through<br>RGB Out (D-sub 15-pin): Loop-through |
| Remote terminal: | REMOTE (for the optional foot switch FS-20 or remote control unit RM-91): stereo mini jack<br>RS-232C: D-sub 25-pin |
| Sampling frequency: | Max. 40MHz |
| Scanning rate: | Approx. 15 to 50kHz |
| Power requirements: | AC 200 to 240V, 50/60Hz |
| Power consumption: | Max. 1.8A |
| Dimensions: | 424(W) × 130(H) × 380(D)mm<br>($16^3/_4 \times 5^1/_8 \times 15$ inches) |
| Mass: | Approx. 10.5kg (23 lb) |

# UP-910 (CCIR/EIA)

## Monochrome video graphic printer

•Large print size (182 × 140mm in normal scan mode, 200 × 150mm in wide 2 scan mode, at 4:3 aspect ratio) •High quality printing of a horizontal resolution of 768 dots and 128 gradations of gray level •High speed printing (approx. 20 seconds) •Frame/Field memory selectable •Printing direction selectable: Normal/Reverse (180° rotation) •Normal/Wide scan selectable •4:3/1:1 aspect ratio selectable •EIA/CCIR automatic selection •Multiple copy function by pressing the "COPY" button •Safety regulations (IEC-950, IEC-601-1 approved)



| | |
|---|---|
| Supplied accessories: | AC power cable<br>Paper roll UP-216HD (1)<br>Paper shaft<br>Head cleaning sheet<br>BNC-BNC connecting cable (1.5m)<br>Operation manual |
| Optional accessories: | Foot switch FS-20<br>Remote control unit RM-91<br>High density printing paper UPP-216HD<br>Normal density printing paper UPP-216SE |

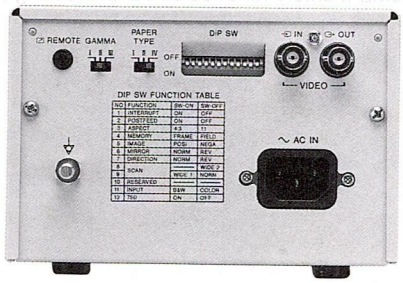
### Specifications

| | |
|---|---|
| Printing method: | Direct thermal printing |
| Thermal head: | Thin film thermal head (with built-in drive IC)<br>768-dot drive |
| Print size: | EIA/CCIR<br>(at aspect ratio 4:3)<br>Normal scan mode: 182 × 140mm ($7^1/_4 \times 5^5/_8$ inches)<br>Wide 1 scan mode: 192 × 146mm ($7^5/_8 \times 5^3/_4$ inches)<br>Wide 2 scan mode: 200 × 150mm ($7^7/_8 \times 6$ inches)<br>(at aspect ratio 1:1)<br>Normal scan mode: 182m × 182mm ($7^1/_4 \times 7^1/_4$ inches)<br>Wide 1 scan mode: 192 × 192mm ($7^5/_8 \times 7^5/_8$ inches)<br>Wide 2 scan mode: 200 × 200mm ($7^7/_8 \times 7^7/_8$ inches) |
| Effective pixels | (CCIR)<br>Normal scan mode: 700 dots × 560 lines<br>Wide 1 scan mode: 736 dots × 582 lines<br>Wide 2 scan mode: 768 dots × 608 lines<br>(EIA)<br>Normal scan mode: 700 dots × 472 lines<br>Wide 1 scan mode: 736 dots × 490 lines<br>Wide 2 scan mode: 768 dots × 508 lines |
| Gradations: | 128 (black and white) |
| Picture memory: | One frame memory (3.36Mbits) |
| Printing time: | Approx. 20 seconds/screen (at aspect ratio 4:3) |
| Input terminal: | VIDEO IN (BNC)<br>CCIR/PAL or EIA/NTSC composite: 1.0Vp-p, 75Ω/high-impedance (switchable) |
| Output terminal: | VIDEO OUT (BNC) Loop-through |
| Remote terminal: | REMOTE (for the optional foot switch FS-20 or remote control unit RM-91): Stereo mini jack |
| Power requirements: | AC 200 to 240V, 50/60Hz |
| Power consumption: | Max. 1.3A, 190W |
| Dimensions: | 424(W) × 130(H) × 380(D)mm<br>($16^3/_4 \times 5^1/_8 \times 15$ inches) |
| Mass: | Approx. 9.1kg (20 lb 1 oz) |
| Safty reguration: | IEC-601-1, IEC-950 |

## UP-890CE (CCIR/EIA)

### Monochrome video graphic printer

•Thermal video graphic printer with quasi 256 steps of gray level •Small size and light weight •A fast printing speed of approx. four seconds •Automatic selection of CCIR/EIA video signal •High resolution printing of 1024 × 608dots (in Wide 2 scan mode) •Multiple print modes (Standard, Side, Normal/Small/Large/×1.5 Enlargement zoom)/ ×2 Enlargement(zoom) •Wide scanning function (Normal/ Wide 1/Wide 2 selectable) •4:3/1:1 aspect ratio selectable •Multiple copy function •Maximum 270 prints from one paper roll in POSTFEED OFF mode (230 prints in POSTFEED ON mode) •Frame/Field memory selectable •Positive/negative printing •Normal/reverse direction printing




| | |
|---|---|
| Supplied accessories: | AC power cable<br>BNC cable (1.5m)<br>Printing paper roll (UPP-110HA)<br>Head cleaning sheet<br>Operation manual |
| Optional accessories: | High quality printing paper (Type I) UP-110S<br>High density printing paper (Type II) UPP-110HD<br>Superior density printing paper (Type II) UPP-110HA<br>Foot switch FS-20<br>Remote control unit RM-91 |

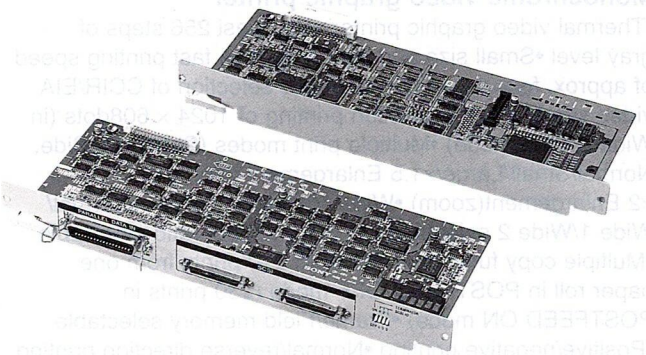
### Specifications

| | |
|---|---|
| Thermal head: | Thin-film thermal head of 1024-dot drive |
| Gradations: | 256 gray levels (quasi) |
| Printed picture size: (at aspect ratio 4:3) | (CCIR)<br>NORMAL: 90.4 × 68.2mm ($3^5/_8 \times 2^3/_4$ inches)<br>WIDE1: 95.1 × 70.9mm ($3^3/_4 \times 2^7/_8$ inches)<br>WIDE2: 100.4 × 74.0mm (4 × 3 inches)<br>(EIA)<br>NORMAL: 90.4 × 69.0mm ($3^5/_8$ $2^3/_4$ inches)<br>WIDE1: 95.1 × 71.6mm ($3^3/_4 \times 2^7/_8$ inches)<br>WIDE2: 100.4 × 74.2mm (4 × 3 inches) |
| Effective pixels: | (CCIR)<br>NORMAL: 922 dots × 560 lines<br>WIDE1: 970 dots × 582 lines<br>WIDE2: 1024 dots × 608 lines<br>(EIA)<br>NORMAL: 922 dots × 472 lines<br>WIDE1: 970 dots × 490 lines<br>WIDE2: 1024 dots × 508 lines |
| Printing speed: | Approx. four seconds/screen - Standard Print Mode<br>Approx. seven seconds/screen - Side Print Mode |
| Picture memory: | 1024 × 768 × 6 bits |
| Input/Output: | Video IN: BNC,<br>CCIR or EIA composite video signal,<br>1.0Vp-p, 75Ω/high impedance selectable<br>Video OUT: BNC,<br>Loop through or E to E selectable |
| Remote: | Remote: Stereo mini jack, for the optional foot switch FS-20 or remote control unit RM-91 |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Max. 110W |
| Dimensions: | Approx. 154(W) × 106(H) × 303D)mm<br>($6^1/_8 \times 4^1/_4 \times 12$ inches) |
| Mass: | 3.5kg (7 lb 11 oz) |
| Safety standard: | IEC 601-1 and IEC 950 |

## UPK-8802RT

### Raster Interface kit

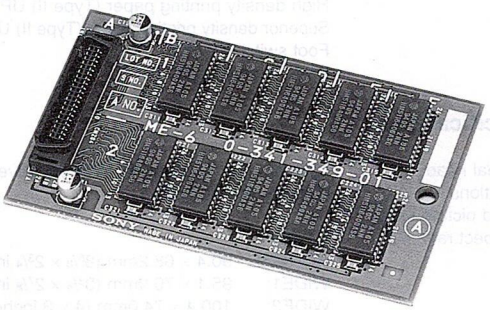
•Provides bit-map printing capability on the UP-D8800 •Includes SCSI and Centronics interface facilities for direct connection between the UP-D8800 and a number of computers and networks •Includes printer driver software which covers the PhotoShop® plug-in module both for Apple® Macintosh® and Microsoft Windows™



## UPK-8801

### Add-on Memory Kit

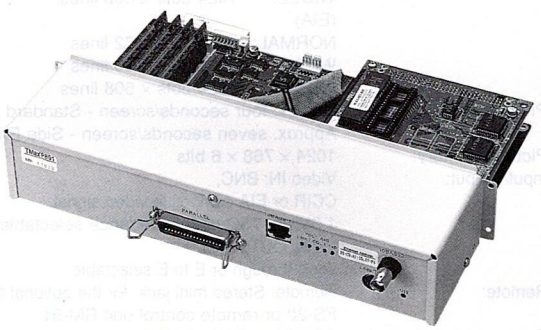
•20MB memory board for the UP-D8800 with the UPK-8802RT to configure a 30MB memory for three colour processing (RGB)



## P891*

### Colour Connectivity Controller

•PostScript printing option for the UP-D8800 •Provides PostScript printing compatible with the PostScript Level 2 interpreter •Applicable the Adobe Type 1 and LaserWriter compatible 35 fonts •Built-in hard disk for font down loading •Standard 32MB RAM for transferred data processing from the connected computer •Uses the Intel i960CF processor •Multiple interface facility including NetWare, TCP/IP and EtherTalk for platform independence •Spooling capability



Note: P891 is manufacturered by Topmax Corporation.
Note: P891 is not available in some areas.
For details, please consalt your nearest Sony office.

## UPS-8801N

### NeWSprint Printer Driver for SUN Sparc WS

•A printer driver software for the NeWSprint supplied by Sun Pics •Supports line print (lp) system •Data format conforms to PostScript, TIFF, Sun Rastor and ASCII based text

## UPA-6600

### Magnetic encoder

•Magnetic encoder for UP-D6600 •In-line magnetic encoding can be performed when utilized with the UP-D6600

## UPK-5500

### Four Frame Memory Board

•Additional four frame memories for the UP-5600MDP •With this board, the internal frame memory of the UP-5600MDP can be expanded to eight frame memories

## UPK-5502SC

### Digital Interface Board

•SCSI interface kit for the UP-5600MDP •Provides A/D and D/A conversion function •Includes SCSI interface board and printer driver software which covers PhotoShop® plug-in modules both for Apple® Macintosh® and Microsoft Windows™ machines

## RM-5500

### Wired/Wireless Remote Commander

•Wired or wireless remote controls over multiple functions of the UP-5600MDP

Supplied accessory: Remote cable (5m)
Operation manual

### Specifications

| | |
|---|---|
| Power requirement: | DC 3V |
| Dimensions: | 62(W) × 20(H) × 175(L)mm ($2^1/_2 \times {}^{27}/_{32} \times 7$ inches) |
| Mass: | 100g (0.2 lb) |

## RM-91

### Remote control unit

•To record or print an image on a still video recorder or a video printer

Connector: Stereo mini
Cable length: 5m

## FS-30

### Foot Switch

•Multiple function controls over the UP-5600MDP connected through the D-Sub 9-pin remote interface.

Supplied accessory: Operation manual

### Specifications

Terminal: D-sub 5-pin
Dimensions: 337.3(W) × 46.1(H) × 128.0(D)mm ($13^3/_8 \times 1^7/_8 \times 5^1/_8$ inches)
Mass: 1.0kg (2 lb 3 oz)

## FS-36

### Foot Switch

• UP1850EPM/1800EPM/1200AEPM

### Specifications

Terminal: Stereo mini
Cable length: 5m
Dimensions: 175(W) × 53(H) × 105(D)mm ($7 \times 2^1/_8 \times 4^1/_4$ inches)



## FS-20

### Foot swich

•To record or print an image on a still video recorder or a video printer

Connector: Stereo mini
Cable length: 5m

## UPC-8810

### A4-size Colour Printing Pack

•Colour print pack for the UP-D8800

Contents: A roll of YMC Ink Ribbon
100 sheets of Print Paper

## UPC-8817

### A4 Plus size Colour Printing Pack

•Colour print pack for UP-D8800 •Prints an entire A4-size •Suitable for CG, Prepress and photo studios

Contents: 100 sheets of print paper
1 roll of ink ribbon

## UPC-8820

### A4-size B&W Printing Pack

•Monochrome print pack for the UP-D8800

Contents: A roll of B&W Ink Ribbon
100 sheets of Print Paper

## UPC-8830

### A4-size OHP Transparency Printing Pack

•OHP transparency print pack for the UP-D8800

Contents: A roll of YMC Ink Ribbon
100 Transparencies

## UPC-8840

### A4-size Self-Laminating Colour Printing Pack

•Self-Laminating print pack for the UP-D8800

Contents: A roll of YMCL Ink Ribbon
70 Transparencies

## UPC-7010P

### A4-size Colour Printing Pack

•Colour print pack for UP-D7000E/7300MDP/7000P

Contents: 100 sheets of print paper
1 roll of ink ribbon for 100 print

## UPC-7020

### A4-size Black and White Printing Pack

•Monochrome print pack for UP-D7000E/7300MDP/7000P

Contents: 100 sheets of print paper
1 roll of ink ribbon for 100 print

## UPC-7030

### A4-size OHP Printing Pack

•Colour OHP transparency print pack for UP-D7000E/7300MDP/7000P

Contents: 100 transparencies
1 roll of ink ribbon for 100 print

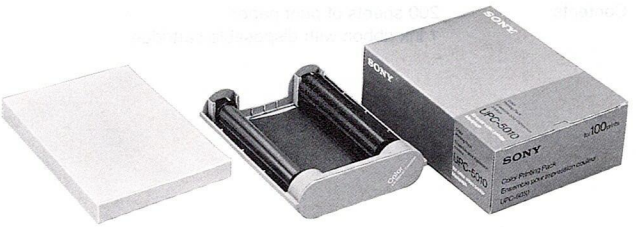
## UPC-5010A/5010P

### A5-size Colour Printing Pack

•Colour print pack for UP-5000P/5200MDP/5250MDP

Contents: 100 sheets of print paper
1 roll of ink ribbon for 100 print

*UPC-5010P is for medical use.




## 10UPC-5010S*

### A5-size Colour Printing Pack

•10 Colour print pack for UP-5000P/5200MDP/5250MDP

Contents: 10packs of 100 sheets of print paper
10rolls of ink ribbon

*Ink ribbon holder not included.

## UPA-5000

### Ink ribbon holder

•Ink ribbon holder for 10UPC-5010S

STILL IMAGE PRODUCTS

## UPC-5510*

### A5-size Colour Printing Pack

•Colour print pack for the UP-5600MDP

Contents: 200 sheets of print paper
A roll of ink ribbon

*Ink ribbon holder not included.

## 5UPC-5510*

### A5-size Colour Printing Pack

•Colour print pack for UP-5600MDP

Contents: 5packs of 200 sheets of print paper
5rolls of ink ribbon

*Ink ribbon holder not included.

## UPC-5510C

### A5-size Colour Printing Pack

•Colour print pack for UP-5600MDP

Contents: 200 sheets of print paper
1 ink ribbon with disposable cartridge

## UPA-5500

### Ink ribbon holder

•Ink ribbon holder for UPC-5510 and 5UPC-5510

## UPC-5530

### A5-size OHP Transparency Pack

•OHP transparency print pack for the UP-5600MDP

Contents: 100 transparencies
A roll of ink ribbon



## UPC-1010

### A6-size Colour Printing Pack

•Colour print pack for UP-D1510CNE/1850EPM/1800EPM/1200AEPM

Contents: 100 sheets of print paper
1 roll of ink ribbon

## 20UPC-1010

### A6-size Colour Printing Pack

•Colour print pack for UP-D1510CNE/1850EPM/1800EPM/1200AEPM

Contents: 5packs of 100 sheets of print paper
5 rolls of ink ribbon

## UPC-1020

### A6-size Black and White Printing Pack

•Monochrome print pack for UP-1850EPM/1800EPM/1200EPM

Contents: 100 sheets of print paper
1 roll of ink ribbon

## 5UPC-1040A

### A6-size Self-Laminating Colour Printing Pack

•Colour print and thermal lamination pack for the UP-1850EPM/ 1800EPM /1200AEPM, UPC-1510CNE

Contents: 375 sheets of print paper
5 cartridges of ink ribbon (75 prints/cartridge)

## UPC-3010/3010P

### A6-size Colour Printing Pack

•Colour print pack for UPC-3000P/3000EP/3030P

Contents: 80 sheets of print paper
1 roll of ink ribbon

## UPC-3020

### A6-size B&W Printing Pack

•B&W print pack for UPC-3000P/3000EP/3030P

Contents: 80 sheets of print paper
1 roll of ink ribbon

## 5UPC-3040

### A6-size Lamination Colour Printing Pack

•Colour print pack for UPC-3000P/3000EP/3030P

Contents: 5 pack × 60 sheets of print paper
5 rolls of ink ribbon

## UPC-S16

### A6-size 16-Split Self-Adhesive Stickers Printing Pack

•Printing pack for UP-D1510CNE/1850EPM/1800EPM/1200AEPM

Contents: 100 sheets of print paper
1 cartridge of ink ribbon

## 20UPC-S16

### A6-size 16-Split Self-Adhesive Stickers Printing Pack

•Printing pack for UP-D1510CNE/1850EPM/1800EPM/1200AEPM

Contents: 20packs of 100 sheets of print paper
20rolls of ink ribbon

## UPC-S04

### A6-size 4-Split Self-Adhesive Stickers Printing Pack

•Printing pack for UP-D1510CNE/1850EPM/1800EPM/1200AEPM

Contents: 100 sheets of print paper
1 cartridges of ink ribbon

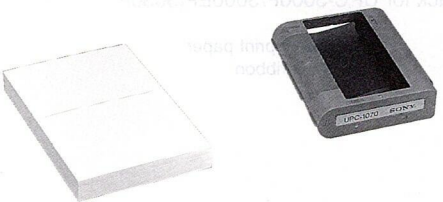


## 20UPR-1070

### Colour Ink Cartridge

•Colour ink cartridge for UP-D1510CNE/1850EPM/1800EPM/1200AEPM

Contents: 20 cartridges of ink ribbon (75prints/cartridges)




## 20UPP-1070

### A6-size Postcard Printing Sheet

•Postcard printing sheet for UP-D1510CNE/1850EPM/1800EPM/1200AEPM

Contents: 20packs of 75 sheets of print paper

## 10APU-10T

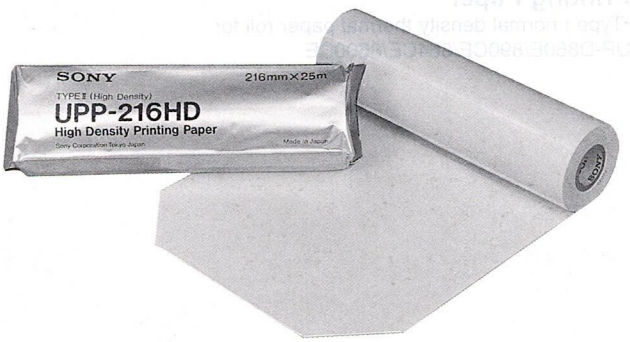
### A6-Size Colour Transfer Printing Pack

Contents: 10 pack of 100 sheets of print paper

## UPP-216HD

### High Density Printing Paper

•Type II high density thermal paper roll for UP-930/910




## UPP-216SE

### Normal Density Printing Paper

•Type II normal density thermal paper roll for UP-930/910

## UPP-110HA

### Superior Density Printing Paper

•Type IV superior density thermal paper roll for the UP-890CE

## UPP-110HD

### High Density Printing Paper

•Type II high density thermal paper for UP-D860E/890CE/864CE/860CE

## UPP-110S

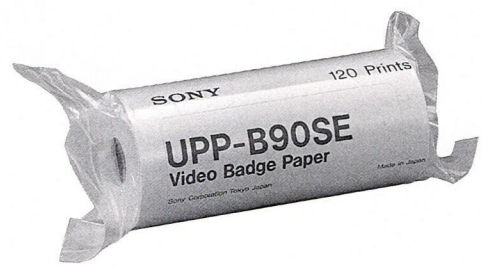
### Printing Paper

•Type I normal density thermal paper roll for UP-D860E/890CE/864CE/8600CE

## UPP-B90SE

### Paper Roll

•120 Self-adhesive labels print for UP-610




## 5UPR-6080

### Colour Ink Ribbon

•Colour ink ribbon for UP-D6600 •Provides YMCKL colour print and thermal lamination

## 5UPR-6040

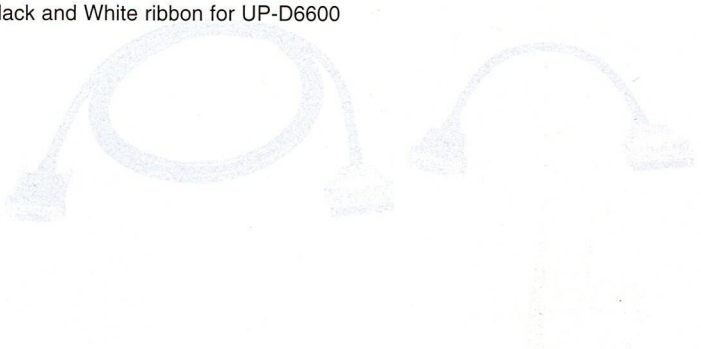
### Colour Ink Ribbon

•Colour ink ribbon for the UP-D6600 •Provides YMCL colour print and thermal lamination

## UPR-6025

### Black and White Ribbon

•Black and White ribbon for UP-D6600

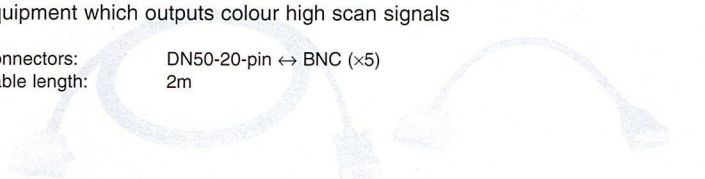


## UPZ-7001

### Video interface cable

•Interface cable between UP-7300MDP/7000P/7000P and video equipment which outputs colour high scan signals

| | |
|---|---|
| Connectors: | DN50-20-pin ↔ BNC (×5) |
| Cable length: | 2m |



## UPZ-7002

### Video interface cable

•Interface cable between UP-7300MDP/7000P and video equipment which outputs monochrome high scan signals

| | |
|---|---|
| Connectors: | DN50-20-pin ↔ BNC |
| Cable length: | 5cm |

## UPZ-7003

### Hi-line terminator

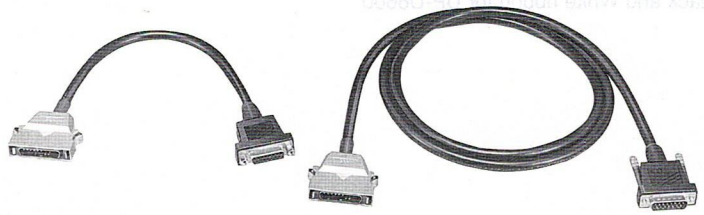
•For 75Ω termination •Used when UP-7300MDP/7000P is used without monitoring display

## UPZ-7000M

### Video interface cable

•Interface cable between UP-7300MDP/7000P and Apple Macintosh series computers

Connectors: DN50-20-pin ↔ D-sub 15-pin
Cable length: 1.5m, 0.3m

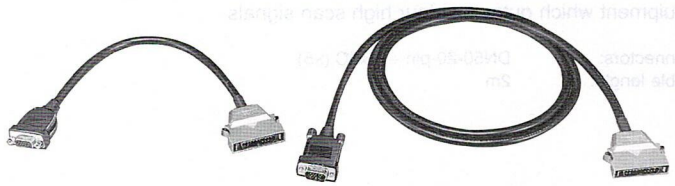


## UPZ-7000I

### Video interface cable

•Interface cable between UP-7300MDP/7000P and IBM PS/2 computers

Connectors: DN50-20-pin ↔ D-sub 15-pin
Cable length: 1.5m, 0.3m





## UPZ-930M

### Video interface cable

•Interface cable between UP-930 and Apple Macintosh series computers

Connectors: D-sub 15-pin ↔ D-sub 15-pin
Cable length: 2m

## UPZ-930I

### Video interface cable

•Interface cable between UP-930 and IBM PS/2 computers

| | |
|---|---|
| Connectors: | D-sub 15-pin ↔ D-sub 15-pin |
| Cable length: | 2m |

## SMF-3005

### RGB cable

•For connecting UP-930 to a video product equipped with RGB connectors

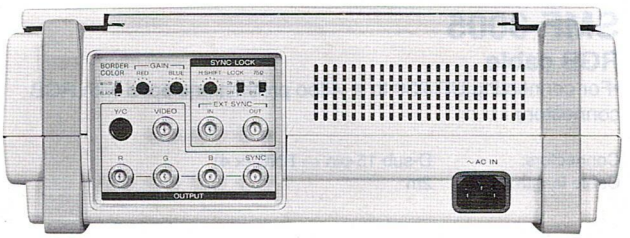
| | |
|---|---|
| Connectors: | D-sub 15-pin ↔ BNC (× 4) |
| Cable length: | 2m |

# UY-T35P

## Colour video scanner

•High speed scanning of approx. 7 seconds per image (normal colour mode, A4 size) •High quality video images—horizontal resolution of more than 500TV lines, 256 gradations/each colour of R, G, B •No image distortion for whole area of the image using CCD technology •Multiple outputs of RGB video signal output, Y/C separate output, and composite video output •Trimming function •Title superimpose function •Scroll and pointer functions for presentation •Various colour adjustment functions (colour, contrast, brightness, and sharpness) •External sync in/out connectors for sync lock with other video equipment •Transportable (compact and light weight)

Supplied accessories: AC power cable
Operation manual




### Specifications

**General**

| | |
|---|---|
| Scanning system: | Flat-bed, Linear CCD sensor one pass scanning |
| Maximum scanning area: | 212 × 300mm (83/8 × 113/4 inches) |
| Sensor: | Linear CCD sensor (8 dots/mm: 1,728 dots) |
| Light source: | Red LED, green LED, blue fluorescent lamp |
| Gradations: | 256 gradations/each colour (R, G, B 3-channel) |
| Scanning time: | Approx. 7 seconds (normal colour mode, size 8) |
| Trimming: | 14 triming magnification levels, free positioning |
| Frame memory: | 768(H) × 512(V) × 8 bits × 3 colours for image—<br>Effective image area: 700(H) × 510(V)<br>768(H) × 512(V) × 4 bits for superimpose—<br>Effective image area: 700(H) × 510(V) |
| Pointer: | 2 pointers selectable (8 colours/pointer) |
| Scanning mode: | NORM/FINE/B&W/TITLE |
| Colour adjustment: | COLOR/CONTRAST/BRIGHTNESS/<br>SHARPNESS/HUE, RED/BLUE GAINS |
| Dimensions: | 328(W) × 121(H) × 507(D)mm<br>(13 × 4 7/8 × 20 inches) |
| Mass: | Approx. 9kg (19 lb 3 oz) |
| Power requirements: | AC 220 to 240V, 50/60Hz, 0.6A |
| Power consumption: | Approx. 45W |

**Video (at volume center click)**

| | |
|---|---|
| Video format: | CCIR standard,<br>PAL (H: 15.625kHz, V: 50Hz, interlaced) |
| Resolution: | 500TV lines |
| RGB analogue: | BNC (×4) (R/G/B/SYNC)<br>R/G/B: 0.7Vp-p, 75Ω, unbalanced<br>SYNC: 1.0Vp-p, 75Ω, unbalanced, negative |
| Y/C separate: | Mini DIN 4-pin<br>Y; 1.0Vp-p,<br>C (burst level); 0.3Vp-p |
| Composite: | BNC: 1.0Vp-p, 75Ω, unbalanced,<br>sync negative |

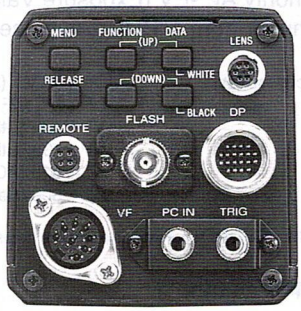
**Sync lock**

| | |
|---|---|
| Ext. sync. in: | BNC: 1.0 to 4.0Vp-p, 75Ω, unbalanced,<br>negative |
| Ext. sync. out: | BNC: Loop through |

# DKC-5000

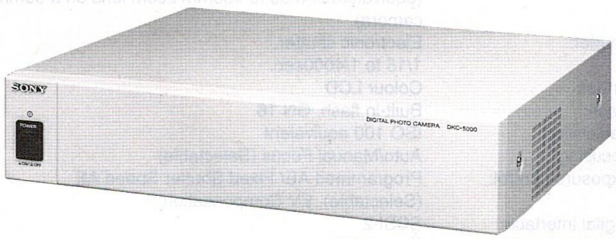
## Digital Photo Camera

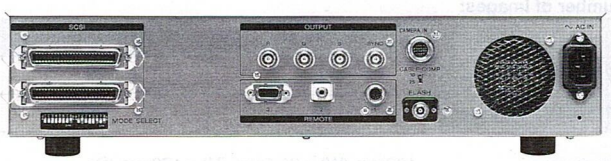
•High resolution of 800 (h) x 800 (v) TV lines •1/2-inch three-CCD camera (470K pixels each) •Diagonal pixel offset •10-bit analog-to-digital conversion and Look Up Table (LUT) realizing delicate adjustments of color saturation and gamma characteristics •Strobe synchronization •Equipped with two-frame memory •Controllable from a computer via SCSI •1/2-inch 38mm bayonet mount




Supplied Units/Accessories:
- Camera head
- Digital processor
- Camera cable (10m)
- Release switch (RM-S72)
- Software (Photoshop Plug-in)
- SCSI cable
- AC power cord

Optional Accessories:
- DKB-5008 (Frame Memory board)
- VCL-713BXS
- VCT-S20
- DXF-40BCE
- DXF-41




## Specifications

### Camera Head

| | |
|---|---|
| Imager: | 3-chip 1/2-inch Interline-transfer CCD |
| Effective picture elements: | 440,000 pixels |
| Total picture elements: | 470,000 pixels |
| Resolution: | 800 (horizontal) x 800 (vertical) TV lines |
| Spatial pixel offset: | Horizontal and vertical |
| Lens mount: | 1/2-inch 38mm bayonet |
| Signal-to-noise ratio: | More than 56dB (at ISO 100) |
| Sensitivity: | ISO 100, 200, 400, 800 |
| White balancing : | Automatic (Flash ON/OFF)<br>Manual (Red gain and Blue gain adjustable individually) |
| Electric shutter: | 4 to 1/10,000 sec. |
| Gamma: | Switchable (on/off/User1/User2/User3) |
| Contrast: | Adjustable from -127 to 127 |
| Colour temperature pre-setting: | 3200K/5600K |
| Input/output connector: | Processor: 20-pin<br>Lens: 6-pin<br>EVF: DIN 8-pin<br>REMOTE: 4-pin, for RM-S72<br>FLASH: X-connector<br>PC IN: Stereo mini<br>TRIG: Stereo mini |
| Operating temperature: | 5°C to 35°C |
| Dimension (w/h/d): | 70 x 72 x 123.5 mm |
| Mass: | (Approx.) 620g |

### Digital Processor

| | |
|---|---|
| Analog/Digital conversion: | 10-bit |
| Final image data size: | 1520 (h) × 1144 (v) × 3 channels (5.0Mbytes) |
| Memory: | 2 planes |
| Analog output: | R/G/BSync.: BNC × 4, 0.7 Vp-p, 75 ohms (625 lines/ 50Hz) |
| Digital interface: | SCSI-2 |
| Input/output connector: | Camera: 20-pin<br>FLASH: X-connector<br>REMOTE1: 12-pin<br>REMOTE2: Mini<br>REMOTE3: D-sub 9-pin<br>SCSI: Amphenol 50-pin x 2 |
| Power requirements: | AC 220V to 240 V (50/60Hz) |
| Power consumption: | 0.7A |
| Dimension: (w/d/h): | 423 × 356.5 × 105.5mm |
| Mass: | Approx. 9kg |

# DKC-ID1

## Digital Still Camera

•Powerful business tool to input the digital image diretly into a personal computer •Progressive Scan CCD allows blur-free still image capture •Simple recording with PC card (PCMCIA ATA Type II) which slots into the camera •JPEG Compression •Close-up photography (Macro setting 1cm) •12x Zoom Lens •Two-way powering - either from rechargeable Lithium-ion Batteries or the AC-V615, AC power adaptor. •Auto Focus/ Manual Focus (Selection) •Selection from Programmed AE (Auto Exposure)/ Shutter Priority AE •EV (Exposure Value) compensation •Electronic shutter from 1/15 to 1/4000 sec. •Electronic color viewfinder

Accessories:
- DKA-MC2F (2MB PC Card)
- DKA-MC10F (10MB PC Card)
- NP-F530 (Lithium-ion Battery)
- NP-F730 (Lithium-ion Battery)
- AC-V615 (AC Adaptor/ Battery Charger)
- BC-V500 (Batter Charger) *

* The BC-V500 is not available in some areas.

## Specifications

| | |
|---|---|
| Imager: | 1/3-inch 450,000 pixel CCD |
| Imager type: | Progressive Scan Type |
| Lens: | 12× zoom (f = 5.4mm to 64.8mm) with macro (equivalent to a 38 to 459mm zoom lens on a 35mm camera) |
| Shutter: | Electronic shutter, 1/15 to 1/4000sec. |
| Finder: | Colour LCD |
| Flash: | Built-in flash, GN 16 |
| Sensitivity: | ISO 100 equivalent |
| Focusing: | Auto/Manual Focus (Selectable) |
| Exposure control: | Programmed AE/ Fixed Shutter Speed AE (Selectable), EV Compensation |
| Digital interface: | SCSI-2 |
| Recording medium: | Sony PC Card |
| Compression: | JPEG compliant |

**Number of images:**

| | Fine Mode | Normal Mode |
|---|---|---|
| 2MB PC Card | 7 | 29 |
| 10MB PC Card | 42 | 158 |

| | |
|---|---|
| Dimensions: | 129mm (W) x 65.5mm (H) x 179mm (D) |
| Mass: | 650g |

# DKR-700P

## Digital Still Recorder

•Digital still image recorder for a wide range of applications •Recording medium: MD Data medium/Picture MD •500 TV lines digital recording •JPEG Compression •Selection is possible from four picture modes - Non Compression/Fine/ Normal/Quick •Flash Synchronization •Image Information such as the title of the image, sent from RM-C700 or an external computer, can be recorded along with the images •Interval recording to be set from 5 sec. to 60 min. •Automatic playback •Multiple inputs/ outputs •List search function with RM-C700 •Image Search funtion •Rapid image retrieval •SCSI port equipped allowing image data to be transferred to a computer •RS-232C port allows sophisticated control from a computer •Foot switch operation is possible with FS-20 and FS-30

| | |
|---|---|
| Supplied Accessories: | Operational manual<br>Software (Photoshop Plug-in for Windows)<br>AC Power Cord |
| Optional accessories: | RM-C700 (Remote Control Unit)<br>RM-91 (Remote Control Unit)<br>FS-20 (Foot Control Unit)<br>FS-30 (Foot Control Unit)<br>MMD-140 (Rewritable MD DATA medium) |

### Specifications

| | |
|---|---|
| Recording Medium: | Mini Disc for DATA |
| File Format: | Picture MD |
| Data Compression Method: | JPEG Base Line; Fixed Data Length algorithm |
| Data Size/Sub Sampling: | MAIN 768 × 592 (Y:U:V 4:2:2)<br>SD(Quick play back) 640 x 480 (Y:U:V 4:2:0)<br>INDEX (Image search) 80 x 60 (Y:U:V 4:2:0) |
| Sampling Frequency: | 14.75MHz |
| Digital Interface: | SCSI RGB 4:4:4 pixel sequential |
| Digital I/O | SCSI-2 Half pitch pin conncetor |
| Horizontal resolution: | More than 500 TV lines |
| Video input: | Composite (BNC x 1)<br>Y/C (DIN 4-pin S type)<br>RGB (BNC × 3)<br>Sync (BNC × 1) |
| Video output: | Composite (BNC × 1)<br>Y/C (DIN 4-pin S type)<br>RGB (BNC × 3)<br>Sync (BNC × 1) |
| Image information: | Image Number (Auto increment)<br>Title 15 digits<br>ID Number 15 digits<br>year/month/date/hour/min./sec.<br>Comment 250 Bytes |
| Recording mode: | NON COMPRESSION/FIN/NORMAL/QUICK |
| Camera control mode: | CAMERA1 BNC (External Sync)<br>(for Long Time Exposure by DXC-930P/950P)<br>CAMERA 2 BNC (External Sync)<br>(for REC Control by DXC-950P) |
| External control: | RS-232C (D-sub 9-pin female) for computer control |
| Power requirement: | AC220/230/240V switchable, 50Hz |
| Power consumption: | 0.30 A max. |
| Mass: | Approx. 7.0kg |
| Safety approval: | EN60950, EN50081-1, EN50082-1, FCC Class A<br>(The DKR-700P meets all applicable provisions of the EN6060-1 safety standard.) |

## RM-C700

**Remote control unit for the DKR-700P**

•For convenient operation of the DKR-700P
•File name can be input to the images of the DKR-700P

## FS-30

**Foot Switch**

•Multiple function controls over the UP-5600MDP connected through the D-sub 9-pin remote interface.

Supplied accessory: Operation manual

### Specifications

Terminal: Disub 5-pin
Dimensions: 337.3(W) × 46.1(H) × 128.0(D) mm

## MMD-140

**Rewritable MD DATA**

•Large capacity (140MB)
•Compact size (Diameter 64mm, Width 1.2mm)

## RM-91

**Remote control unit**

•To record or print an image on a still video recorder or a video printer

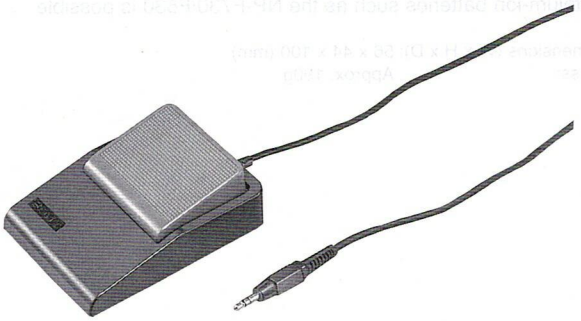
Connector: Stereo mini
Cable length: 5 m

## FS-20

**Foot swich**

•To record or print an image on a still video recorder or a video printer

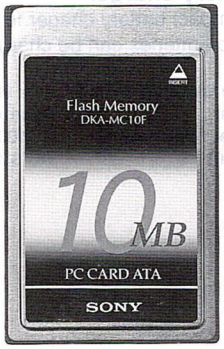
| | |
|---|---|
| Connector: | Stereo mini |
| Cable length: | 5m |



## DKA-MC-2F/DKA-MC10F

**2MB/10MB PC Card for the DKC-ID1**

| | |
|---|---|
| Interface: | PCMCIA-ATA |
| Type of memory: | Flash memory |
| Dimension: | 85.6 × 54.0 × 5.0 (mm) |
| Recordable images (DKC-ID1): | DKA-MC2F: 7 (Fine mode), 29 (Normal mode) |
| | DKA-MC10F: 42 (Fine mode), 158 (Normal mode) |

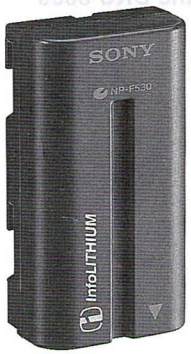



## NP-F530

**Rechargeable Lithium-ion Battery**

•Can be used for the DKC-ID1

| | |
|---|---|
| Voltage: | 7.2V |
| Capacity: | 1350mAh |
| Dimensions (W × H × D): | 38.4 × 20.6 × 70.8 (mm) |
| Mass: | Approx. 110g |




## NP-F730

**Rechargeable Lithium-ion Battery**

•Can be used for the DKC-ID1

| | |
|---|---|
| Voltage: | 7.2V |
| Capacity: | 2700mAh |
| Dimensions (W × H × D): | 38.4 × 39.1 × 70.8 (mm) |
| Mass: | Approx. 200g |

## AC-V615

**AC adaptor/battery charger**

•Lithium-ion batteries such as the NP-F730/F530 is possible

Dimensions (W x H x D): 56 x 44 x 100 (mm)
Mass: Approx. 190g

## BC-V500

**Battery charger**

•Compact battery chager for the NP-F530/F730, etc.
•Two batteries can be charged at the same time

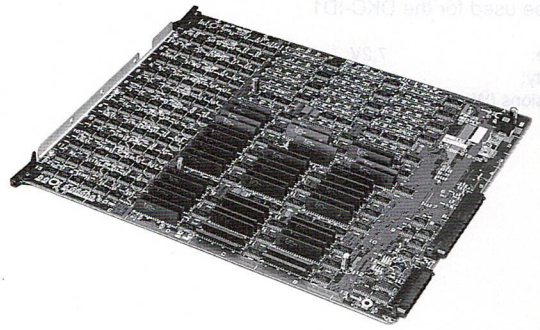
Dimensions (W x H x D): 45 x 98 x 50 (mm)
Mass: Approx. 120g
Power requirements: AC100 to 240V, 50/60Hz
Output: DC 8.4V/ 0.6A

## VCT-S20

**Tripod Adaptor for the DKC-5000**

## DKB-5008

**Frame Memory Board for the DKC-5000**



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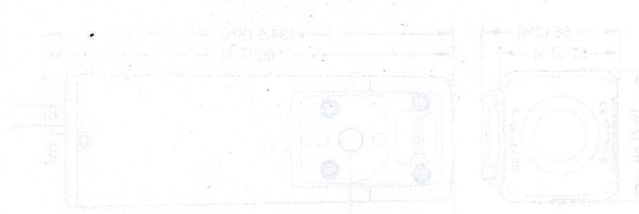


# SSC-DC30P/DC38P

## CCD colour video camera

•Especially designed for surveillance applications •High density 1/2-inch IT Hyper HAD CCD offers high horizontal resolution of 470TV lines and high sensitivity with a minimum illumination of 1.9 lx (F1.2) •Excellent signal-to-noise ratio of 48dB •Digital control Smart Control function executes the intelligent and flexible automatic backlight compensation •10-bit linear A/D converter realizes clear and noiseless picture reproduction •CCD IRIS function allows use of inexpensive manual iris lenses •Two alternative automatic white balance control modes: AWB (Auto White Balance)/ATW pro (New Auto Tracing White Balance) •Variable speed electronic shutter •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses •Easy control of main functions using control switches on the side panel (Shutter speed setting, CCD IRIS control, AGC setting and lens selection)

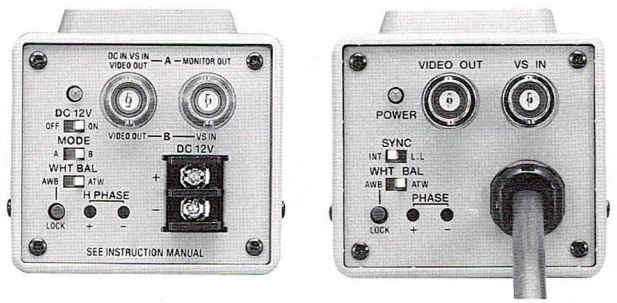
SSC-DC30P SSC-DC38P

Lens is optional

### Exclusive features for SSC-DC30P

•DC 12/24V power operation •External synchronization with VS or VBS* •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12V DC power supply can also be used (Mode B)

SSC-DC30P SSC-DC38P




### Exclusive features for SSC-DC38P

•AC 220 to 240V operation •External synchronization with VS or AC line lock

| | | |
|---|---|---|
| Supplied accessories: | Lens connector | |
| | Lens mount cap | |
| | Operating instruction manual | |
| Optional accessories: | Camera adaptor | YS-W150P, YS-W250P (for SSC-DC30P only) |
| | Manual iris lens | VCL-S03XM (3.6mm, F1.6) |
| | | VCL-S06XM (6.0mm, F1.2) |
| | | VCL-S12XM (12mm, F1.2) |
| | Auto iris lens | VCL-S03XEA (3.6mm, F1.6) |
| | | VCL-S06XEA (6.0mm, F1.2) |
| | | VCL-S12XEA (12mm, F1.2) |
| | Aspherical auto iris lens | VCL-3ADXEA (3.8mm, F0.8) |

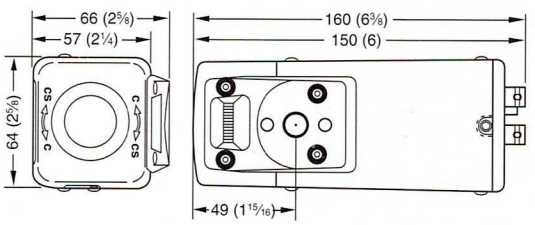
### Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752(H) × 582(V) |
| Sensing area: | 6.3mm × 4.7mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | SSC-DC30P: Internal or external with VS (VBS*)<br>SSC-DC38P: Internal or external with VS or AC line lock |
| Horizontal resolution: | 470 TV lines |
| Lens mount: | C/CS-mount (Back focus adjustable) |
| Minimum illumination: | At F1.2 (AGC ON), S/N ratio at 35dB<br>15 IRE (107mV): 0.5 lx<br>35 IRE (250mV): 1.9 lx<br>100 IRE (714mV):11.0 lx |
| Enhancer: | 3H |
| Automatic Gain Control: | ON/OFF switchable |
| Electronic shutter: | 1/50, 1/120(FL), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| Phase control: | SSC-DC30P: H-phase control (±0.25H)<br>SSC-DC38P: V-phase control (±90°) |
| CCD IRIS control: | ON/OFF switchable, 1/50 to 1/10000 (s) |
| White balance: | ATW pro/AWB switchable |
| Backlight compensation: | Smart Control |
| DSP type: | 10-bit linear A/D |
| Signal-to-noise ratio: | 48dB (AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F ) |
| Storage temperature: | –40 to 60°C (–40 to 140°F ) |

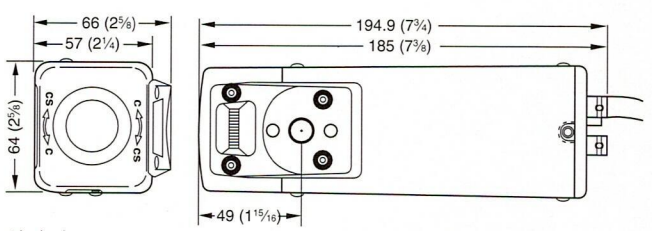
| | |
|---|---|
| Power requirements: | SSC-DC30P: DC 24V from YS-W150P/W250P or DC 12V from DC 12V power supply<br>SSC-DC38P: AC 220 to 240V |
| Power consumption: | SSC-DC30P: 5.5W supplied from YS-W150P/W250P or 4.5W at DC 12V<br>SSC-DC38P: 6.0W |
| Maximum cable length: | (SSC-DC30P only)<br>300m using RG-59B/U (3C-2V)<br>500m using RG-6A/U (5C-2V)<br>600m using RG-11A/U (7C-2V) |
| Mass: | SSC-DC30P: Approx. 620g (1 lb 6 oz)<br>SSC-DC38P: Approx. 1.1kg (2 lb 7 oz) |
| Auto iris lens: | DC/VIDEO driven type |
| Connectors: | SSC-DC30P: DC 12V terminals, LENS (4-pin), Mode A (Triple multiplexing operation): DC IN/ VS IN/ VIDEO OUT (BNC), MONITOR OUT (BNC)<br>Mode B (DC 12V operation): VIDEO OUT (BNC), VS IN (BNC)<br>SSC-DC38P: LENS (4-pin),VIDEO OUT (BNC) VS IN (BNC) |

**Dimensions**

SSC-DC30P




SSC-DC38P




*The SSC-DC30P accepts VBS signals for external synchronization, however, the burst signal is not locked.

Unit: mm (inch)

SURVEILLANCE PRODUCTS

# SSC-DC14P/DC18P

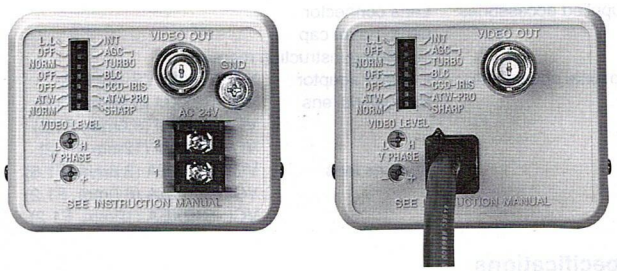
## CCD colour video camera

•Especially designed for surveillance applications •High density 1/3-inch IT Hyper HAD CCD offers high horizontal resolution of 470TV lines and high sensitivity with a minimum illumination of 1.5 lx (F1.2) •Excellent signal-to-noise ratio of 50dB •Digital control Smart Control function executes the intelligent and flexible automatic backlight compensation •Turbo AGC raises drastically sensitivity by automatically controlling video gain in a range that is 6dB wider than the normal AGC range •Aperture Sharp mode makes object outlines sharper in the reproduced picture •CCD IRIS function allows use of inexpensive manual iris lenses •Two alternative automatic white balance control modes: ATW (Auto Tracing White Balance)/ATW pro •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses •External synchronization with AC line lock •Selection of power source: AC 24V for SSC-DC14P, AC 220 to 240V for SSC-DC18P

SSC-DC14P SSC-DC18P

Lens is optional

SSC-DC14P SSC-DC18P



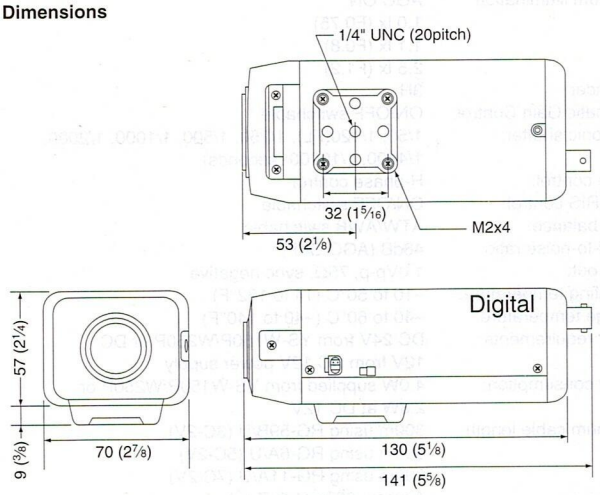

Supplied accessories: Lens connector
Lens mount cap
Operating instruction manual

Optional accessories: Auto iris lens VCL-3V8WEAP (3.5 to 8.0mm, F1.8)
VCL-S02WEAP (2.8mm, F1.3)
VCL-S04WEAP (4.0mm, F1.4)

### Specifications

| | |
|---|---|
| Image device: | 1/3-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752(H) × 582(V) |
| Sensing area: | 3.3mm × 4.4mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with AC line lock (SSC-DC14P: AC 24V, SSC-DC18P: AC 220 to 240V) |
| Horizontal resolution: | 470 TV lines |
| Lens mount: | C/CS-mount (Back focus adjustable) |
| Minimum illumination: | Turbo AGC ON<br>0.6 lx (F0.75)<br>0.7 lx (F0.8)<br>1.5 lx (F1.2) |
| Aperture: | SHARP/NORMAL switchable |
| Enhancer: | 3H |
| Automatic Gain Control: | TURBO/NORMAL/OFF switchable |
| Phase control: | V-phase control (±90°) |
| CCD IRIS control: | ON/OFF switchable |
| White balance: | ATW pro/ATW switchable |
| Backlight compensation: | Smart Control |
| Signal-to-noise ratio: | 50dB (Weight ON, AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F ) |
| Storage temperature: | –40 to 60°C (–40 to 140°F ) |
| Power requirements: | SSC-DC14P: AC 24V<br>SSC-DC18P: AC 220 to 240V |
| Power consumption: | SSC-DC14P: 4.5W<br>SSC-DC18P: 5.5W |
| Mass: | SSC-DC14P: Approx. 550g (1 lb 3 oz)<br>SSC-DC18P: Approx. 770g (1 lb 11 oz) |
| Auto iris lens: | DC/VIDEO driven type |
| Connectors: | SSC-DC14P: AC 24V terminals, LENS (4-pin) VIDEO OUT (BNC), GND<br>SSC-DC18P: LENS (4-pin),VIDEO OUT (BNC) |

**Dimensions**




Unit: mm (inch)

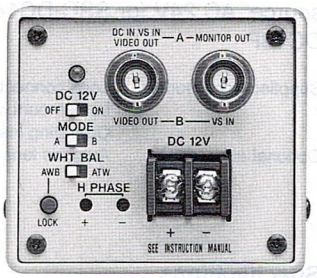
SURVEILLANCE PRODUCTS

# SSC-C370P

## CCD colour video camera

•Especially designed for surveillance applications •High density 1/2-inch IT Hyper HAD CCD offers extremely high resolution of 470TV lines and high sensitivity with a minimum illumination of 2.5 lx (F1.2) •Excellent signal-to-noise ratio of 48dB •Digital control CCD IRIS eliminates the need to use an automatic iris lens •Two alternative automatic white balance control modes: AWB (Auto White Balance)/ATW (Auto Tracing White Balance) •Variable speed electronic shutter •Accepts C-mount lenses •External synchronization with VS or VBS* •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12V DC power supply can also be used (Mode B)

Lens is optional

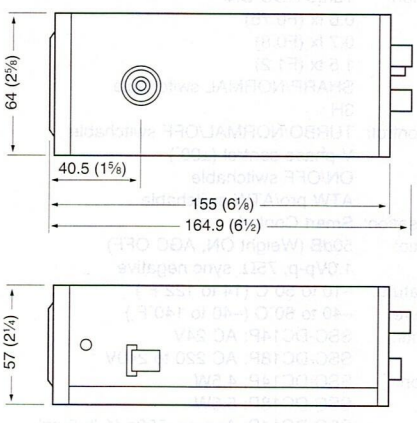



| | | |
|---|---|---|
| Supplied accessories: | Lens connector | |
| | Lens mount cap | |
| | Operating instruction manual | |
| Optional accessories: | Camera adaptor | YS-W150P, YS-W250P |
| | Manual iris lens | VCL-S03XM (3.6mm, F1.6) |
| | | VCL-S06XM (6.0mm, F1.2) |
| | | VCL-S12XM (12mm, F1.2) |
| | Auto iris lens | VCL-S03XEA (3.6mm, F1.6) |
| | | VCL-S06XEA (6.0mm, F1.2) |
| | | VCL-S12XEA (12mm, F1.2) |

## Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752(H) × 582(V) |
| Sensing area: | 6.3mm × 4.7mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with VS (VBS)* |
| Horizontal resolution: | 470TV lines |
| Lens mount: | C-mount (Back focus adjustable) |
| Minimum illumination: | AGC ON |
| | 1.0 lx (F0.75) |
| | 1.1 lx (F0.8) |
| | 2.5 lx (F1.2) |
| Enhancer: | 3H |
| Automatic Gain Control: | ON/OFF switchable |
| Electronic shutter: | 1/50, 1/120(FL), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| Phase control: | H-phase control |
| CCD IRIS control: | ON/OFF switchable |
| White balance: | ATW/AWB switchable |
| Signal-to-noise ratio: | 48dB (AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F) |
| Storage temperature: | –40 to 60°C (–40 to 140°F) |
| Power requirements: | DC 24V from YS-W150P/W250P or DC 12V from DC 12V power supply |
| Power consumption: | 4.0W supplied from YS-W150P/W250P or 2.8W at DC 12V |
| Maximum cable length: | 300m using RG-59B/U (3C-2V) |
| | 500m using RG-6A/U (5C-2V) |
| | 600m using RG-11A/U (7C-2V) |
| Mass: | Approx. 660g (1 lb 7 oz) |
| Connectors: | DC 12V terminals, LENS (4-pin) |
| | Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) |
| | Mode B (DC 12V operation): VIDEO OUT (BNC), VS IN (BNC) |

**Dimensions**




Unit: mm (inch)

*The SSC-C370P accepts VBS signals for external synchronization, however, the burst signal is not locked.

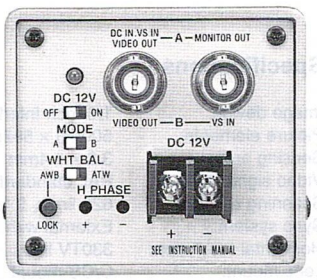
# SSC-C350P

## CCD colour video camera

•Especially designed for surveillance applications •1/2-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 2.5 lx (F1.2) •Excellent signal-to-noise ratio of 46dB •Digital control CCD IRIS eliminates the need to use an automatic iris lens •Two alternative automatic white balance control modes: AWB (Auto White Balance)/ATW (Auto Tracing White Balance) •Variable speed electronic shutter •Accepts C-mount lenses •External synchronization with VS or VBS* •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12V DC power supply can also be used (Mode B)

Lens is optional

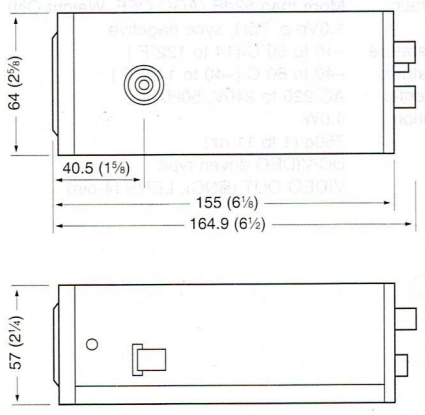
| | | |
|---|---|---|
| Supplied accessories: | Lens connector | |
| | Lens mount cap | |
| | Operating instruction manual | |
| Optional accessories: | Camera adaptor | YS-W150P, YS-W250P |
| | Manual iris lens | VCL-S03XM (3.6mm, F1.6) |
| | | VCL-S06XM (6.0mm, F1.2) |
| | | VCL-S12XM (12mm, F1.2) |
| | Auto iris lens | VCL-S03XEA (3.6mm, F1.6) |
| | | VCL-S06XEA (6.0mm, F1.2) |
| | | VCL-S12XEA (12mm, F1.2) |




## Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 500(H) × 582(V) |
| Sensing area: | 6.3mm × 4.7mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with VS (VBS)* |
| Horizontal resolution: | 330TV lines |
| Lens mount: | C-mount (Back focus adjustable) |
| Minimum illumination: | AGC ON |
| | 1.0 lx (F0.75) |
| | 1.1 lx (F0.8) |
| | 2.5 lx (F1.2) |
| Enhancer: | 3H |
| Automatic Gain Control: | ON/OFF switchable |
| Electronic shutter: | 1/50, 1/120(FL), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| CCD IRIS control: | ON/OFF switchable |
| White balance: | ATW/AWB switchable |
| Phase control: | H-phase control |
| Signal-to-noise ratio: | 46dB (AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F) |
| Storage temperature: | –40 to 60°C (–40 to 140°F) |
| Power requirements: | DC 24V from YS-W150P/W250P or DC 12V from DC 12V power supply |
| Power consumption: | 3.5W supplied from YS-W150P/W250P or 2.4W at DC 12V |
| Maximum cable length: | 300m using RG-59B/U (3C-2V) |
| | 500m using RG-6A/U (5C-2V) |
| | 600m using RG-11A/U (7C-2V) |
| Mass: | Approx. 660g (1 lb 7 oz) |
| Connectors: | DC 12V terminals, LENS (4-pin) |
| | Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) |
| | Mode B (DC 12V operation): VIDEO OUT (BNC), VS IN (BNC) |

### Dimensions




Unit: mm (inch)

*The SSC-C350P accepts VBS signals for external synchronization, however, the burst signal is not locked.

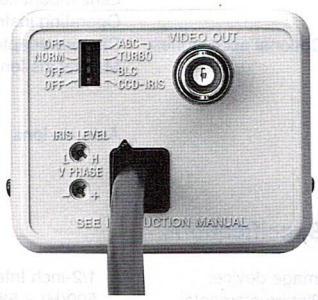
# SSC-C108P

## CCD colour video camera

•Especially designed for surveillance applications •1/3-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 0.9 lx (F1.2) •Excellent signal-to-noise ratio of 52dB •Automatic backlight compensation •Turbo AGC improves sensitivity by boosting its video gain over the AGC range •CCD IRIS function allows use of inexpensive manual iris lenses •ATW (Auto Tracing White Balance) for white balance adjustment •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses •External synchronization with AC line lock •AC 220 to 240V power operation

Lens is optional

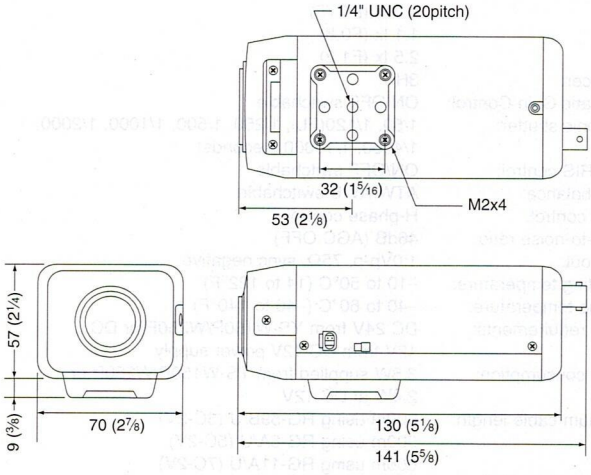
| | | |
|---|---|---|
| Supplied accessories: | Lens connector | |
| | Lens mount cap | |
| | Operating instruction manual | |
| Optional accessories: | Auto iris lens | VCL-3V8WEAP (3.5 to 8.0mm, F1.8) |
| | | VCL-S02WEAP (2.8mm, F1.3) |
| | | VCL-S04WEAP (4.0mm, F1.4) |




### Specifications

| | |
|---|---|
| Image device: | 1/3-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 500(H) × 582(V) |
| Sensing area: | 3.3 × 4.4mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | External with AC line lock |
| Horizontal resolution: | 330TV lines |
| Lens mount: | C/CS-mount |
| Minimum illumination: | Turbo AGC ON |
| | 0.4 lx (F0.8) |
| | 0.9 lx (F1.2) |
| Enhancer: | 3H |
| Automatic Gain Control: | TURBO/NORMAL/OFF switchable |
| Phase control: | V-phase control (±90°) |
| CCD IRIS: | 1/50 to 1/100000 (seconds) |
| CCD IRIS control: | ON/OFF switchable |
| White balance: | ATW |
| Backlight compensation: | Automatic control |
| Signal-to-noise ratio: | More than 52dB (AGC OFF, Weight ON) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F ) |
| Storage temperature: | –40 to 60°C (–40 to 140° F ) |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 4.0W |
| Mass: | 760g (1 lb 11 oz) |
| Auto iris lens: | DC/VIDEO driven type |
| Connectors: | VIDEO OUT (BNC), LENS (4-pin) |

**Dimensions**




Unit: mm (inch)

SURVEILLANCE PRODUCTS

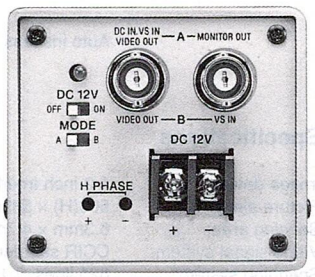
# SSC-M370CE

## CCD monochrome video camera

•Especially designed for surveillance applications •High density 1/2-inch IT Hyper HAD CCD offers extremely high resolution of 570TV lines and high sensitivity with a minimum illumination of 0.3 lx (F1.2) •Excellent signal-to-noise ratio of 50dB •Digital control CCD IRIS eliminates the need to use an automatic iris lens •Variable speed electronic shutter •Accepts C-mount lenses •External synchronization with VS •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12V DC power supply can also be used (Mode B)

**Lens is optional**

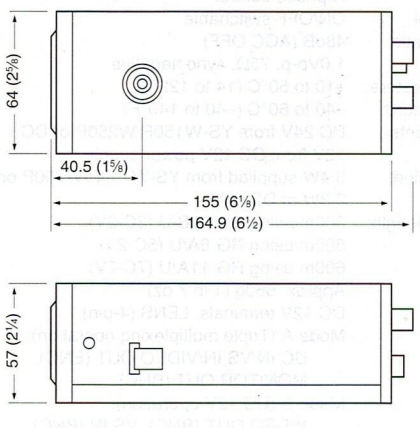
| | | |
|---|---|---|
| Supplied accessories: | Lens connector | |
| | Lens mount cap | |
| | Operating instruction manual | |
| Optional accessories: | Camera adaptor | YS-W150P, YS-W250P |
| | Manual iris lens | VCL-S03XM (3.6mm, F1.6) |
| | | VCL-S06XM (6.0mm, F1.2) |
| | | VCL-S12XM (12mm, F1.2) |
| | Auto iris lens | VCL-S03XEA (3.6mm, F1.6) |
| | | VCL-S06XEA (6.0mm, F1.2) |
| | | VCL-S12XEA (12mm, F1.2) |




## Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752(H) × 582(V) |
| Sensing area: | 6.3mm × 4.7mm |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with VS |
| Horizontal resolution: | 570TV lines |
| Lens mount: | C-mount (Back focus adjustable) |
| Minimum illumination: | AGC ON |
| | 0.12 lx (F0.75) |
| | 0.13 lx (F0.8) |
| | 0.3 lx (F1.2) |
| Automatic Gain Control: | ON/OFF switchable |
| Electronic shutter: | 1/50, 1/120(FL), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| Phase control: | H-phase control |
| CCD IRIS control: | ON/OFF switchable |
| Signal-to-noise ratio: | 50dB (AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F) |
| Storage temperature: | –40 to 60°C (–40 to 140°F) |
| Power requirements: | DC 24V from YS-W150P/W250P or DC 12V from DC 12V power supply |
| Power consumption: | 4.0W supplied from YS-W150P/W250P or 2.8W at DC 12V |
| Maximum cable length: | 300m using RG-59B/U (3C-2V) |
| | 500m using RG-6A/U (5C-2V) |
| | 600m using RG-11A/U (7C-2V) |
| Mass: | Approx. 660g (1 lb 7 oz) |
| Connectors: | DC 12V terminals, LENS (4-pin) |
| | Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) |
| | Mode B (DC 12V operation): VIDEO OUT (BNC), VS IN (BNC) |

**Dimensions**




Unit: mm (inch)

SURVEILLANCE PRODUCTS

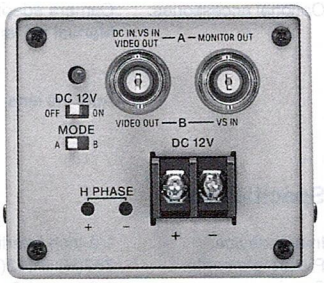
# SSC-M350CE

## CCD monochrome video camera

•Especially designed for surveillance applications •1/2-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 0.3 lx (F1.2) •Excellent signal-to-noise ratio of 48dB •Digital control CCD IRIS eliminates the need to use an automatic iris lens •Variable speed electronic shutter •Accepts C-mount lenses •External synchronization with VS •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12V DC power supply can also be used (Mode B)

Lens is optional

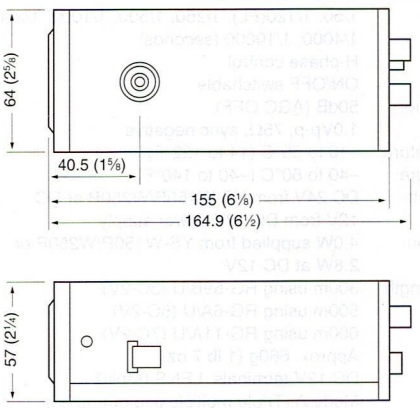
| | | |
|---|---|---|
| Supplied accessories: | Lens connector | |
| | Lens mount cap | |
| | Operating instruction manual | |
| Optional accessories: | Camera adaptor | YS-W150P, YS-W250P |
| | Manual iris lens | VCL-S03XM (3.6mm, F1.6) |
| | | VCL-S06XM (6.0mm, F1.2) |
| | | VCL-S12XM (12mm, F1.2) |
| | Auto iris lens | VCL-S03XEA (3.6mm, F1.6) |
| | | VCL-S06XEA (6.0mm, F1.2) |
| | | VCL-S12XEA (12mm, F1.2) |




## Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 500(H) × 582(V) |
| Sensing area: | 6.3mm × 4.7mm |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with VS |
| Horizontal resolution: | 380TV lines |
| Lens mount: | C-mount (Back focus adjustable) |
| Minimum illumination: | AGC ON |
| | 0.12 lx (F0.75) |
| | 0.13 lx (F0.8) |
| | 0.3 lx (F1.2) |
| Automatic Gain Control: | ON/OFF switchable |
| Electronic shutter: | 1/50, 1/120(FL), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| Phase control: | H-phase control |
| CCD IRIS control: | ON/OFF switchable |
| Signal-to-noise ratio: | 48dB (AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F) |
| Storage temperature: | –40 to 60°C (–40 to 140°F) |
| Power requirements: | DC 24V from YS-W150P/W250P or DC 12V from DC 12V power supply |
| Power consumption: | 3.4W supplied from YS-W150P/W250P or 2.3W at DC 12V |
| Maximum cable length: | 300m using RG-59B/U (3C-2V) |
| | 500m using RG-6A/U (5C-2V) |
| | 600m using RG-11A/U (7C-2V) |
| Mass: | Approx. 660g (1 lb 7 oz) |
| Connectors: | DC 12V terminals, LENS (4-pin) |
| | Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) |
| | Mode B (DC 12V operation): VIDEO OUT (BNC), VS IN (BNC) |

**Dimensions**




Unit: mm (inch)

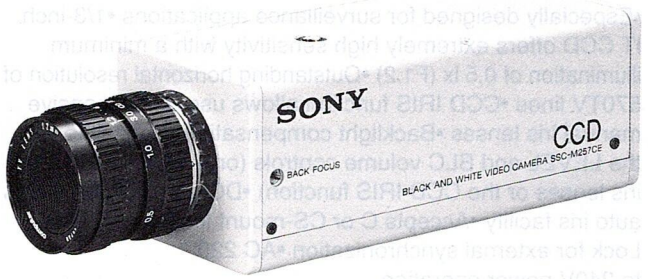
SURVEILLANCE PRODUCTS

# SSC-M257CE

## CCD monochrome video camera

•Especially designed for surveillance applications •1/2-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 0.3 lx (F1.2) •Excellent signal-to-noise ratio of 48dB •Eight-step CCD IRIS control eliminates the need to use an automatic iris lens for indoor use •Accepts C or CS-mount lenses •AC Line Lock for external synchronization • AC 220V power operation

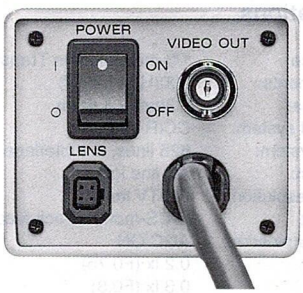
| | | |
|---|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>C-mount adaptor<br>Operating instruction manual | |
| Optional accessories: | Manual iris lens | VCL-S03XM (3.6mm, F1.6)<br>VCL-S06XM (6.0mm, F1.2)<br>VCL-S12XM (12mm, F1.2) |
| | Auto iris lens | VCL-S03XEA (3.6mm, F1.6)<br>VCL-S06XEA (6.0mm, F1.2)<br>VCL-S12XEA (12mm, F1.2) |



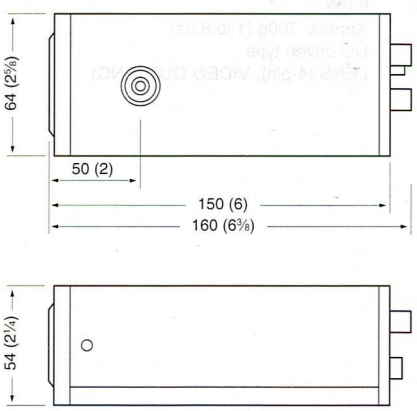

Lens is optional

### Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 500(H) × 582(V) |
| Sensing area: | 6.3mm × 4.7mm |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | AC line lock |
| Horizontal resolution: | 380TV lines |
| Lens mount: | C-mount (with the supplied adaptor, Back focus adjustable)/CS-mount (Back focus adjustable) |
| Minimum illumination: | AGC ON<br>0.12 lx (F0.75)<br>0.13 lx (F0.8)<br>0.3 lx (F1.2) |
| Automatic Gain Control: | Always AGC ON |
| Phase control: | V-phase control<br>(±90° adjustable by inside volume) |
| CCD IRIS control: | 8 steps, ON/OFF switchable by internal switch |
| Signal-to-noise ratio: | 48dB (AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F) |
| Storage temperature: | –40 to 60°C (–40 to 140°F) |
| Power requirements: | AC 220V |
| Power consumption: | 4.5W |
| Mass: | Approx. 970g (2 lb 2 oz) |
| Connectors: | LENS (4-pin), VIDEO OUT (BNC) |




### Dimensions




Unit: mm (inch)

# SPT-M308CE

## CCD monochrome video camera

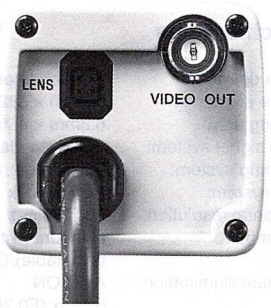
•Especially designed for surveillance applications •1/3-inch IT CCD offers extremely high sensitivity with a minimum illumination of 0.5 lx (F1.2) •Outstanding horizontal resolution of 570TV lines •CCD IRIS function allows use of inexpensive manual iris lenses •Backlight compensation is possible with the LEVEL and BLC volume controls (only when using auto iris lenses or the CCD IRIS function) •DC servo circuit drives auto iris facility •Accepts C or CS-mount lenses •AC Line Lock for external synchronization •AC 220 to 240V power operation

Lens is optional

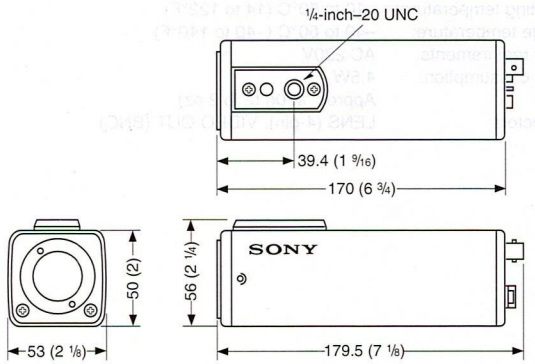
| | | |
|---|---|---|
| Supplied accessories: | Lens connector | |
| | Lens mount cap | |
| | Operating instruction manual | |
| Optional accessories: | Auto iris lens | VCL-3V8WEAP (3.5 to 8.0mm, F1.8) |
| | | VCL-S02WEAP (2.8mm, F1.3) |
| | | VCL-S04WEAP (4.0mm, F1.4) |

### Specifications

| | |
|---|---|
| Image device: | 1/3-inch Interline Transfer CCD |
| Picture elements: | 500(H) × 582(V) |
| Sensing area: | 3.3mm × 4.4mm |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | AC line lock |
| Horizontal resolution: | 570TV lines |
| Lens mount: | C/CS-mount (Back focus adjustable) |
| Minimum illumination: | AGC ON |
| | 0.2 lx (F0.75) |
| | 0.3 lx (F0.8) |
| | 0.5 lx (F1.2) |
| Automatic Gain Control: | Always AGC ON |
| Phase control: | V-phase control (±90°) |
| CCD IRIS: | 1/50 to 1/50000 (seconds) |
| CCD IRIS control: | ON/OFF switchable |
| Backlight compensation: | Volume control |
| Signal-to-noise ratio: | 45dB (AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F) |
| Storage temperature: | –40 to 60°C (–40 to 140°F) |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 6.0W |
| Mass: | Approx. 700g (1 lb 8 oz) |
| Auto iris lens: | DC driven type |
| Connectors: | LENS (4-pin), VIDEO OUT (BNC) |




### Dimensions




Unit: mm (inch)

SURVEILLANCE PRODUCTS

# SPT-M102CE/M108CE

**CCD monochrome video camera**

•Especially designed for surveillance applications •1/3-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 0.1 lx (F1.2) •Excellent signal-to-noise ratio of 45dB •CCD IRIS function allows use of inexpensive manual iris lenses •Backlight compensation is possible with the LEVEL and BLC volume controls (only when using auto iris lenses or the CCD IRIS function •DC servo circuit drives auto iris facility •Accepts both CS and C-mount lenses •Alternative power source operation (DC 12V for the SPT-M102CE, AC 220 to 240V for the SPT-M108CE) •External synchronization with AC line lock (for the SPT-M108CE)

| | | |
|---|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>Operating instruction manual | |
| Optional accessories: | Auto iris lens | VCL-3V8WEAP (3.5 to 8.0mm, F1.8)<br>VCL-S02WEAP (2.8mm, F1.3)<br>VCL-S04WEAP (4.0mm, F1.4) |

## Specifications

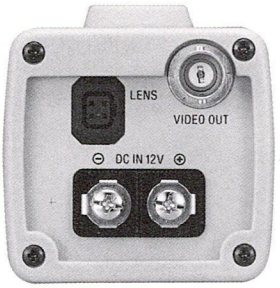
| | |
|---|---|
| Image device: | 1/3-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 500(H) × 582(V) |
| Sensing area: | 3.3 × 4.4mm |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | SPT-M102CE: Internal<br>SPT-M108CE: AC line lock |
| Horizontal resolution: | 380TV lines |
| Lens mount: | C/CS-mount (Back focus adjustable) |
| Minimum illumination: | 0.1 lx at F1.2 |
| Automatic Gain Control: | Always AGC ON |
| Phase control: | V-phase control (SPT-M108CE only) |
| CCD IRIS control: | ON/OFF switchable |
| Signal-to-noise ratio: | More than 45dB (AGC ON) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F) |
| Storage temperature: | –40 to 60°C (-40 to 140°F) |
| Power requirements: | SPT-M102CE: DC 12V<br>SPT-M108CE: AC 220 to 240V |
| Power consumption: | SPT-M102CE: 2.4W<br>SPT-M108CE: 6.0W |
| Mass: | SPT-M102CE: Approx. 350g (12.3 oz)<br>SPT-M108CE: Approx. 730g (1 lb 10 oz) |
| Auto iris lens: | DC driven type |
| Connectors: | LENS (4-pin), VIDEO OUT (BNC), DC 12V terminals (SPT-M102CE only) |

SPT-M108CE

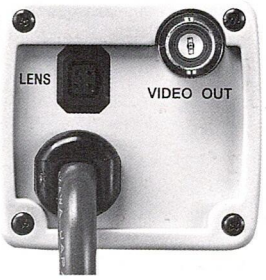
SPT-M102CE

Lens is optional

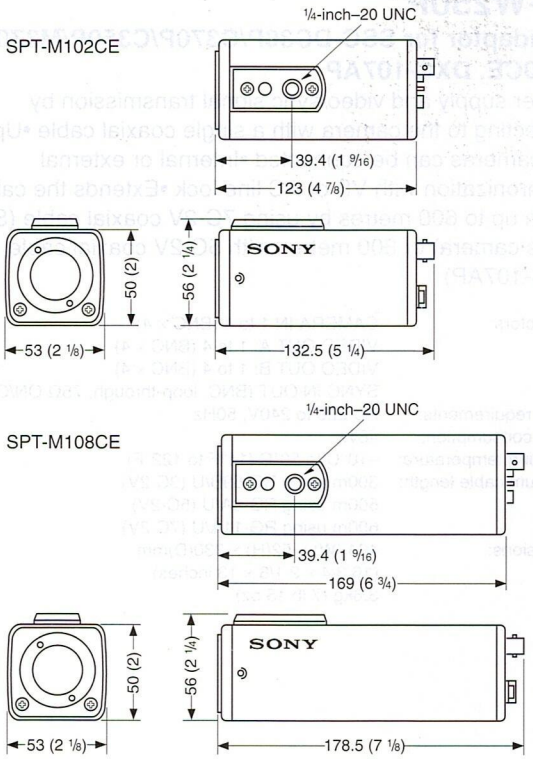
SPT-M102CE




SPT-M108CE




**Dimensions**




Unit: mm (inch)

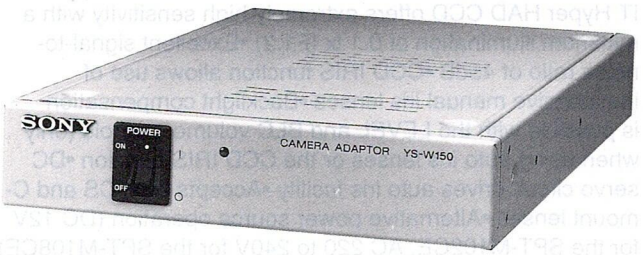
SURVEILLANCE PRODUCTS

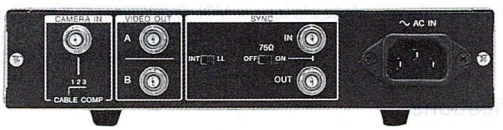
## YS-W150P

### AC adaptor for SSC-DC30P/C370P/C350P/ M370CE/M350CE

•Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable
•Internal or external synchronization with VS or AC line lock
•Extends the cable length up to 600 metres by using 7C-2V coaxial cable

| | |
|---|---|
| Connectors: | CAMERA IN (BNC)<br>VIDEO OUT (BNC × 2)<br>SYNC IN/OUT (BNC, loop-through, 75Ω ON/OFF) |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 15W |
| Operating temperature: | –10°C to 50°C (14°F to 122°F) |
| Maximum cable length: | 300m using RG-59B/U (3C-2V)<br>500m using RG-6A/U (5C-2V)<br>600m using RG-11A/U (7C-2V) |
| Dimensions: | 212(W) × 52(H) × 330(D)mm<br>(8 3/8 × 2 1/8 × 13 inches) |
| Mass: | 1.9kg (4 lb 3 oz) |



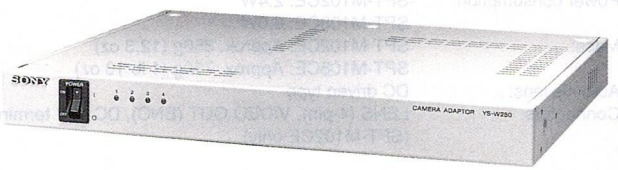



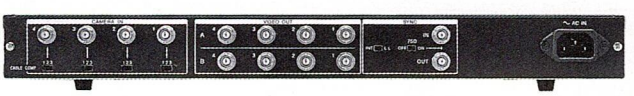

## YS-W250P

### AC adaptor for SSC-DC30P/C370P/C350P/M370CE/ M350CE, DXC-107AP

•Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable •Up to four cameras can be connected •Internal or external synchronization with VS or AC line lock •Extends the cable length up to 600 metres by using 7C-2V coaxial cable (SSC series camera) or 300 metres with 5C-2V coaxial cable (DXC-107AP)

| | |
|---|---|
| Connectors: | CAMERA IN 1 to 4 (BNC × 4)<br>VIDEO OUT A: 1 to 4 (BNC × 4)<br>VIDEO OUT B: 1 to 4 (BNC × 4)<br>SYNC IN/OUT (BNC, loop-through, 75Ω ON/OFF) |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 48W |
| Operating temperature: | –10°C to 50°C (14°F to 122°F) |
| Maximum cable length: | 300m using RG-59B/U (3C-2V)<br>500m using RG-6A/U (5C-2V)<br>600m using RG-11A/U (7C-2V) |
| Dimensions: | 424 (W) × 52(H) × 330(D)mm<br>(16 3/4 × 2 1/8 × 13 inches) |
| Mass: | 3.6kg (7 lb 15 oz) |



SURVEILLANCE PRODUCTS

## Lenses for 1/2-inch C-mount cameras

### 1) Auto-iris Type

(Video servo type/EE amplifier type/ALC type)

| Models | VCL-S03XEA | VCL-S06XEA | VCL-S12XEA |
|---|---|---|---|
| Mount | C | C | C |
| Focal length | 3.6mm | 6.0mm | 12mm |
| Iris control | Auto | Auto | Auto |
| Maximum aperture ratio | 1 : 1.6 | 1 : 1.2 | 1 : 1.2 |
| Filter size | — | M43 × 0.75mm | M43 × 0.75mm |
| Mass | 88g (3.1 oz) | 128g (4.5 oz) | 126g (4.4 oz) |
| Dimensions | ø45(dia.) × 32.9(L)mm ($1^{13}/_{16} \times 1^{5}/_{16}$ inches) | ø45.5(dia.) × 48.5(L)mm ($1^{13}/_{16} \times 1^{15}/_{16}$ inches) | ø45.5(dia.) × 48.5(L)mm ($1^{13}/_{16} \times 1^{15}/_{16}$ inches) |
| Supply voltage | DC 8 to 16V | DC 8 to 16V | DC 8 to 16V |

### 2) Manual-iris Type

| Models | VCL-S03XM | VCL-S06XM | VCL-S12XM |
|---|---|---|---|
| Mount | C | C | C |
| Focal length | 3.6mm | 6.0mm | 12mm |
| Iris control | Manual | Manual | Manual |
| Maximum aperture ratio | 1 : 1.6 | 1 : 1.2 | 1 : 1.2 |
| Filter size | M35.5 × 0.5mm | M35.5 × 0.5mm | M35.5 × 0.5mm |
| Mass | 66g (2.3 oz) | 74g (2.6 oz) | 60g (2.1 oz) |
| Dimensions | ø38(dia.) × 28.6(L)mm ($1^{1}/_{2} \times 1^{3}/_{16}$ inches) | ø38(dia.) × 36.4(L)mm ($1^{1}/_{2} \times 1^{7}/_{16}$ inches) | ø38(dia.) × 30.8(L)mm ($1^{1}/_{2} \times 1^{1}/_{4}$ inches) |

## Aspherical auto-iris lens for 1/2-inch CS-mount cameras

(DC servo type/ Non-EE amplifier type/ Non-ALC type)

| Model | VCL-3ADXEA |
|---|---|
| Mount | CS |
| Focal length | 3.8mm |
| Iris control | Auto |
| Maximum aperture ratio | 1 : 0.8 |
| Maximum object distance | 0.15m |
| Filter size | M43 × 0.75mm |
| Mass | 150g (5.3 oz) |
| Dimensions (dia. × H × L) | ø45.0 × 56.8 × 52.5mm ($1^{13}/_{16} \times 2^{1}/_{4} \times 2^{1}/_{8}$ inches) |
| Cable length | 90mm ($3\ ^{5}/_{8}$ inch) |

## Lenses for 1/3-inch CS-mount camera

### 1) Auto-iris Type

(DC servo type/ Non-EE amplifier type/ Non-ALC type)

| Models | VCL-3V8WEAP | VCL-S02WEAP | VCL-S04WEAP |
|---|---|---|---|
| Mount | CS | CS | CS |
| Focal length | 3.5 to 8.0mm | 2.8mm | 4.0mm |
| Iris control | Auto | Auto | Auto |
| Maximum aperture ratio | 1 : 1.8 | 1 : 1.3 | 1 : 1.4 |
| Maximum object distance | 0.2m | 0.2m | 0.2m |
| Filter size | M30.5 × 0.5mm | M30.5 × 0.5mm | M30.5 × 0.5mm |
| Mass | 70g (2 oz) | 41g (1.4 oz) | 75g (3 oz) |
| Dimensions (dia. × H × L) | ø42.0 × 52.0 × 47.0mm ($1^{11}/_{16} \times 2^{1}/_{8} \times 1^{7}/_{8}$ inches) | ø32.0 × 39.8 × 33.0mm ($1^{5}/_{16} \times 1^{5}/_{8} \times 1^{5}/_{16}$ inches) | ø42.0 × 52.0 × 47.0mm ($1^{11}/_{16} \times 2^{1}/_{8} \times 1^{7}/_{8}$ inches) |
| Cable length | 260mm ($10^{1}/_{4}$ inch) | 310mm ($12^{1}/_{4}$ inch) | 260mm ($10^{1}/_{4}$ inch) |

| Models | TG0412FCS-3 | TG0812FCS-3 |
|---|---|---|
| Mount | CS | CS |
| Focal length | 4.0mm | 8.0mm |
| Iris control | Auto | Auto |
| Maximum aperture ratio | 1 : 1.2 | 1 : 1.2 |
| Filter size | M30.5 × 0.5mm | M30.5 × 0.5mm |
| Mass | 38g (1.3 oz) | 39g (1.4 oz) |
| Dimensions (dia. × H × L) | ø32.0 × 39.8 × 33.0mm ($1^{5}/_{16} \times 1^{5}/_{8} \times 1^{5}/_{16}$inches) | ø32.0 × 39.8 × 33.0mm ($1^{5}/_{16} \times 1^{5}/_{8} \times 1^{5}/_{16}$inches) |
| Note | By computar | By computar |

### 2) Manual-iris Type

| Models | T2616FICS-3 | T0412FICS-3 | T0812FICS-3 |
|---|---|---|---|
| Mount | CS | CS | CS |
| Focal length | 2.6mm | 4.0mm | 8.0mm |
| Iris control | Manual | Manual | Manual |
| Maximum aperture ratio | 1 : 1.6 | 1 : 1.2 | 1 : 1.2 |
| Filter size | – | M30.5 × 0.5mm | M30.5 × 0.5mm |
| Mass | 45g (1.6 oz) | 68g (2.4 oz) | 37g (1.3 oz) |
| Dimensions (dia. × L) | ø34.5 × 34.7mm ($1^{3}/_{8} \times 1^{3}/_{8}$ inches) | ø32.0 × 33.0mm ($1^{5}/_{16} \times 1^{5}/_{16}$ inches) | ø32.0 × 33.0mm ($1^{5}/_{16} \times 1^{5}/_{16}$ inches) |
| Note | By computar | By computar | By computar |

## 9" SSM-9040P

### Colour monitor

•PAL standard •Trinitron colour monitor especially designed for surveillance applications •Adoption of beam current feedback circuit for high black level stability •Automatic 75Ω termination facility •Front controls: Power, Brightness, Chroma, Contrast •EIA standard 19-inch rack mountable (with optional MB-507 mounting bracket) •Metal cabinet for high immunity to external electrical and magnetic interference

| | |
|---|---|
| Supplied accessory: | Operating instruction manual |
| Optional accessories: | Rack mounting bracket MB-507<br>Blanking panel MB-509 |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields |
| Colour system: | PAL |
| CRT Type: | 22cm (9-inch) Trinitron Tube, visible picture size 19.7cm (8-inch) measured diagonally, 70 degree deflection (AG pitch 0.5mm) |
| Resolution: | 250TV lines at centre |
| Frequency response: | 6.0MHz ($^{+1.5dB}_{-3.0dB}$) |
| Aperture correction: | –4.0dB to +6.0dB (at 3.0MHz) |
| Sync system: | AFC time constant 1.0ms |
| Normal scan: | 6% overscan |
| H-linearity: | Less than 7.0% (Typical) |
| V-linearity: | Less than 7.0% (Typical) |
| Convergence: | Central: 0.4mm (Typical)<br>Peripheral: 0.5mm (Typical) |
| Raster size stability: | H: 1.0%<br>V: 1.5% |
| HV-regulation: | 3.0% (Cut off to High light) |
| Colour temperature: | 6500K |
| Operating temperature: | 0 to 35°C (32 to 95°F ) |
| Storage temperature: | –10 to 40°C (14 to 104°F ) |
| Humidity: | 0 to 90% |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 39W |
| Video input: | BNC, 1Vp-p, sync negative |
| Video output: | Loop-through BNC, automatic 75Ω termination* |
| Dimensions: | 217(W) × 217(H) × 352.5(D)mm<br>(8 5/8 × 8 5/8 × 14 inches) |
| Mass: | Approx. 7.8kg (17 lb 3 oz) |

*75Ω termination is automatically set to OFF when connection is made to the OUT connector.

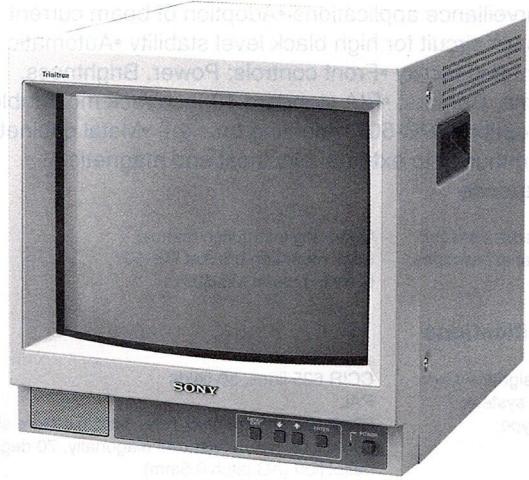
SURVEILLANCE PRODUCTS

## 14" SSM-14N1E (PAL/NTSC/SECAM/NTSC4.43)

### Colour monitor

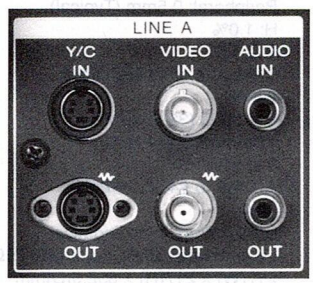
•Trinitron colour monitor especially designed for surveillance applications •High resolution of 500TV lines •Adoption of beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •Automatic 75Ω termination facility •On-screen menu for adjustment/operation •Built-in speaker •EIA standard rack mountable (with optional MB-502B and SLR-102) •Metal cabinet for high immunity to external electrical and magnetic interference

Optional accessories: Rack mounting bracket kit MB-502B
Slide rail kit (used with the MB-502B) SLR-102




### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*1 |
| Picture tube: | 37.1cm (14-inch), HR Trinitron tube, visible picture size 33.2cm(min.) (13-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 80W |
| Dimensions: | 346 (W) × 340 (H) × 414 (D)mm ($13^5/_8 \times 13^3/_8 \times 16^5/_{16}$ inches) |
| Mass: | 15 kg (33 lb 1oz) |
| VIDEO | |
| LINE*2 | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*3<br>Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*3<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*3<br>NTSC:0.286Vp-p, Automatic 75Ω ermination*3 |
| AUDIO | |
| LINE | Loop-through Phono<br>–5dBu, high impedance |




*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

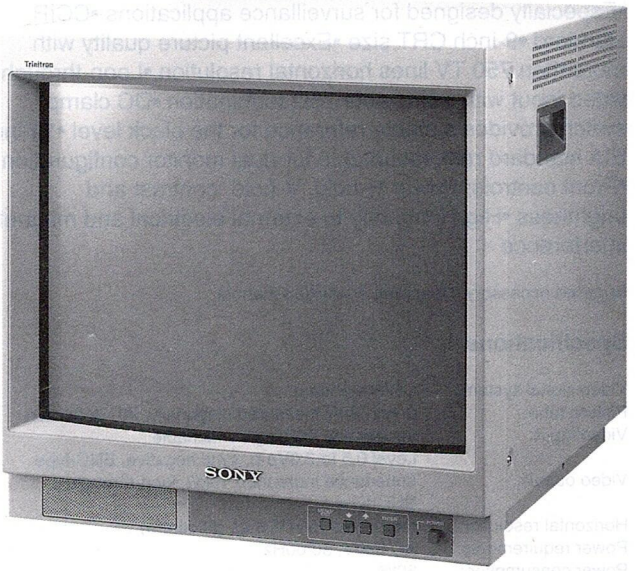
SURVEILLANCE PRODUCTS

## 20" SSM-20N1E (PAL/NTSC/SECAM/NTSC4.43)

### Colour monitor

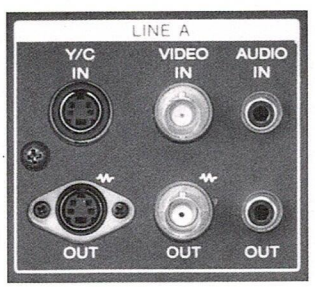
•Trinitron colour monitor especially designed for surveillance applications •High resolution of 500TV lines •Adoption of beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •Automatic 75Ω termination facility •On-screen menu for adjustment/operation •Built-in speaker •EIA standard rack mountable (with optional SLR-103A) •Metal cabinet for high immunity to external electrical and magnetic interference

Optional accessory: Slide rail kit SLR-103A




### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC4.43*1 |
| Picture tube: | 53cm (20-inch), HR Trinitron tube, visible picture size 48.0cm (min.) (19-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 105W |
| Dimensions: | 449 (W) x 441 (H) x 502 (D)mm ($17^{11}/_{16}$ x $17^{3}/_{8}$ x $19^{3}/_{4}$ inches) |
| Mass: | 28 kg (61 lb 11 oz) |
| VIDEO | |
| LINE*2 | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*3<br>Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*3<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*3<br>NTSC:0.286Vp-p, Automatic 75Ω termination*3 |
| AUDIO | |
| LINE | Loop-through Phono<br>–5dBu, high impedance |




*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

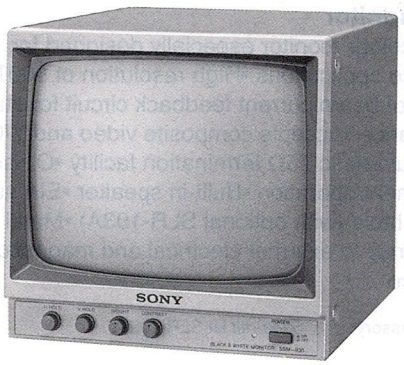
SURVEILLANCE PRODUCTS

## 9" SSM-930CE

### Monochrome monitor

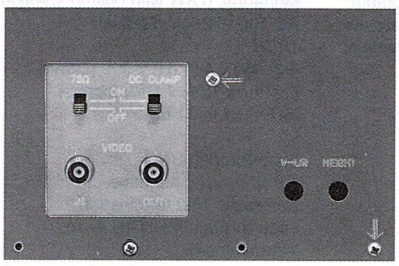
•Especially designed for surveillance applications •CCIR standard •9-inch CRT size •Excellent picture quality with more than 750 TV lines horizontal resolution •Loop-through video input with switchable 75Ω termination •DC clamp switch provides a stable reference for the black level •19-inch EIA standard rack mountable for dual monitor configuration •Front controls: Power H-hold, V-hold, contrast and brightness •High immunity to external electrical and magnetic interference

Supplied accessory: Operating instruction manual




### Specifications

| | |
|---|---|
| Video signal system: | CCIR standard |
| Picture tube: | 9-inch B/W measured diagonally, 90° deflection |
| Video input: | Impedance 75Ω/high switchable<br>Level 0.5 to 2.0Vp-p, sync negative, BNC-type |
| Video output: | Impedance more than 10kΩ, loop-through, BNC-type |
| Horizontal resolution: | More than 750TV lines (at centre) |
| Power requirements: | AC 220V, 50/60Hz |
| Power consumption: | 30W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –10 to 65°C (14 to 149°F) |
| Dimensions: | 220(W) × 219(H) × 252.8(D) mm<br>(8 3/4 x 8 5/8 × 10 inches) |
| Mass: | 5.8kg (13 lb) |

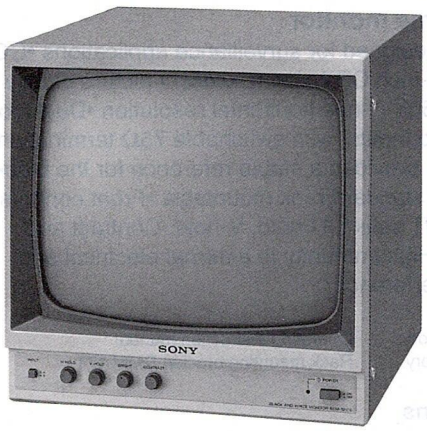


## 12" SSM-121CE

### Monochrome monitor

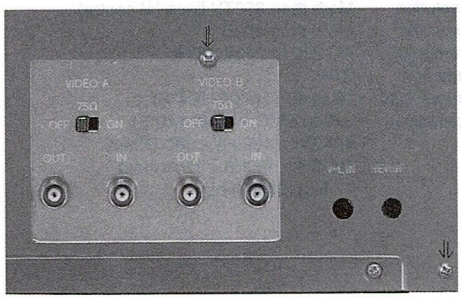
•Especially designed for surveillance applications •CCIR standard •12-inch CRT size •Excellent picture quality with more than 750TV lines horizontal resolution •Dual loop-through video inputs, with switchable 75Ω termination •Front controls: Power, INPUT select, H-hold, V-hold, contrast and brightness •High immunity to external electrical and magnetic interference

Supplied accessory: Operating instruction manual




### Specifications

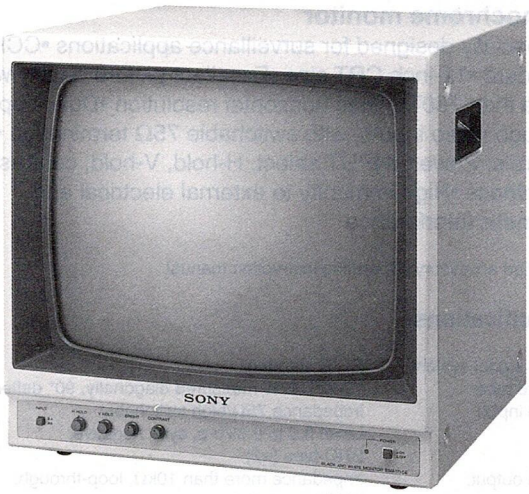
| | |
|---|---|
| Video signal system: | CCIR standard |
| Picture tube: | 12-inch B/W measured diagonally, 90° deflection |
| Video input: | Impedance 75Ω/high switchable<br>Level 0.5 to 2.0Vp-p, sync negative,<br>BNC-type (×2) |
| Video output: | Impedance more than 10kΩ, loop-through,<br>BNC-type (×2) |
| Horizontal resolution: | More than 750 TV lines (at centre) |
| Power requirements: | AC 220V, 50/60Hz |
| Power consumption | 30W |
| Operating temperature: | –10 to 40°C (14 to 104°F) |
| Storage temperature: | –10 to 65°C (14 to 149°F) |
| Dimensions: | 296(W) × 303(H) × 300.5(D) mm<br>(11 3/4 × 12 × 11 7/8 inches) |
| Mass: | 9.2kg (20 lb 5 oz) |



## 17" SSM-171CE

### Monochrome monitor

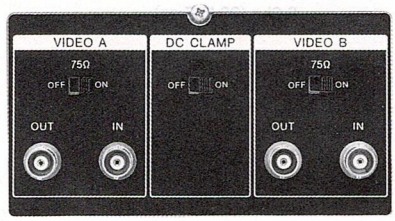
•Especially designed for surveillance applications •CCIR standard •17-inch CRT size •Excellent picture quality with more than 850TV lines horizontal resolution •Dual loop-through video inputs, with switchable 75Ω termination •DC clamp switch provides a stable reference for the black level •19-inch EIA standard rack mountable •Front controls: Power, INPUT select, H-hold, V-hold, Contrast and Brightness •High immunity to external electrical and magnetic interference

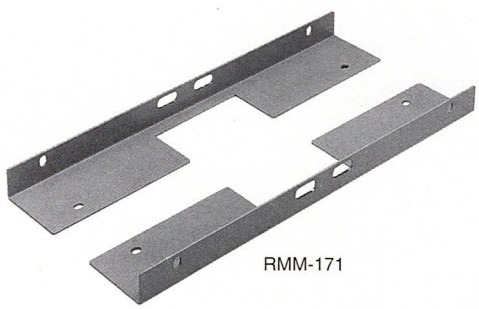



| | |
|---|---|
| Supplied accessory: | Operating instruction manual |
| Optional accessory: | Rack mounting bracket RMM-171 |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR standard |
| Picture tube: | 17-inch B/W measured diagonally, 90° deflection |
| Video input: | Impedance 75Ω/high switchable<br>Level 0.5 to 2.0Vp-p/75Ω,<br>syne negative, BNC-type (×2) |
| Video output: | Impedance more than 10kΩ,<br>loop-through, BNC-type (×2) |
| Horizontal resolution | More than 850TV lines (at centre) |
| Signal-to-noise ratio | More than 46dB |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 37W |
| Operating temperature: | –5 to 40°C (23 to 104°F) |
| Storage temperature: | –40 to 60°C (–40 to 140°F) |
| Dimensions: | 424(W) × 409(H) × 380(D)mm<br>(16 3/4 × 16 1/8 × 15 inches) |
| Mass: | 17.5kg (38 lb 9 oz) |



RMM-171

## 2.7" FDM-030

### Monochrome monitor

•Miniature 2.7-inch diagonal flat display monitor, suitable for on-the-spot camera positioning •Extremely compact and lightweight design for handheld and truly portable use •Operates on four "AA" batteries •One Video input via BNC connector and one audio input via a minijack

Supplied accessories:
- Sony Alkaline batteries (4)
- Earphones
- Handstrap
- Carring case
- Operating instruction manual

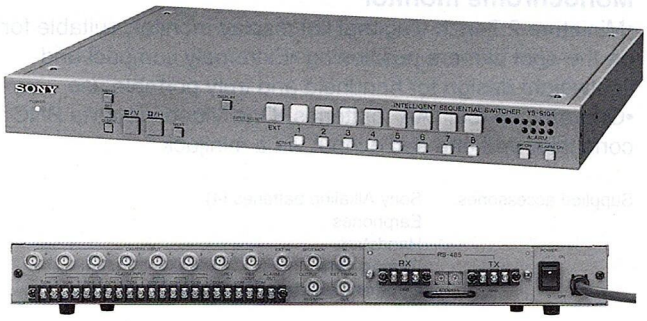
### Specifications

| | |
|---|---|
| Video signal system: | CCIR standard |
| Picture tube: | Flat B/W 2.7-inch measured diagonally |
| Video input: | BNC connector |
| Audio input: | Minijack |
| Power requirements: | DC 6V (four "AA" batteries) |
| Power consumption: | 2.3W |
| Dimensions: | 76(W) × 155(H) × 48(D) mm (3 × 61/8 × 1 15/16 inches) |
| Mass: | 400g (14.2 oz) (incl. batteries) |

# YS-S104

## Intelligent sequential switcher

•Eight video camera inputs and one external input •Sequential Monitor OUTPUT allows sequential monitoring of up to eight cameras •Dwell time (displayed time) can be set for each video camera at eight different times: 1, 2, 3, 5, 10, 20, 30, 60 s. •Spot Monitor OUTPUT gives manual selection of a specific camera •Built-in Date/Time/Character Generator for video camera identification •Eight ALARM INPUTs, each corresponding to a CAMERA INPUT, for automatic display of the picture at the relevant location •Alarm time can be set in 7 steps: 5, 10, 20, 30 seconds, 1, 2, 5 minutes •Alarm memory recall provides an on-screen display of up to 108 alarm events including camera number, date and time information •Cascading up to four YS-S104's via an RS-485 communication port is possible for monitoring pictures from up to 32 cameras •External control up to 255 YS-S104's from a central computer is possible via RS-485 communication port







Supplied accessories: Rack mount bracket (for 19-inch EIA standard rack)
Operating instruction manual

### Specifications

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 110mA |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Dimensions: | 424(W) × 51.6(H) × 355(D) mm (16 3/4 × 2 1/8 × 14 inches) |
| Mass: | Approx. 4.1kg (9 lb 1 oz) |

**Input signals**

| | |
|---|---|
| CAMERA INPUT 1 to 8: | BNC type, PAL colour, 1.0Vp-p, 75Ω, unbalanced, sync negative |
| EXT (External) IN: | BNC type, PAL colour, 1.0Vp-p, 75Ω, unbalanced, sync negative |
| ALARM INPUT 1 to 8: | M3 screw type, alarm activated when connected to COM (Connection resistance less than 600Ω) Max. DC voltage on input, 5V |
| REV (Recovery) IN: | M3 screw type, DC 5V, impedance 2.2kΩ |
| EXT (External) TIMING IN: | BNC type, Open circuit voltage DC 5V, impedance 5.6kΩ |

**Output signals**

| | |
|---|---|
| SPOT MON (Monitor) OUTPUT: | BNC type, impedance 75Ω |
| SEQ MON (Sequential monitor) OUTPUT: | BNC type, impedance 75Ω |
| ALARM OUT: | M3 screw type, open collector output, contact rating DC 5V/100mA resistive load |
| RESET OUT: | M3 screw type, DC 4V, impedance 1kΩ |
| EXT (External) TIMING OUT: | BNC connector, open collector output, contact rating DC 5V/100mA resistive load |

**Others**

| | |
|---|---|
| Interface unit: | RS-485 interface |

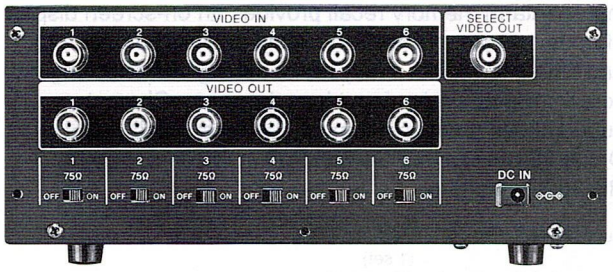
# YS-S6

## Six-channel sequential switcher

•Compact-size sequential switcher for small surveillance systems •Accepts also NTSC/EIA signal •Six VIDEO INPUTs with loop-through capability •The pictures from up to six video cameras can be monitored seqentially via the SELECT VIDEO OUT •Dwell time is selectable anywhere from 1 to 30 seconds per camera input •INPUT SELECT button gives manual selection of a specific camera •SKIP function for unused video input channel

Supplied accessory: Operating instruction manual

Note: AC adaptor is an option.




## Specifications

**General**

| | |
|---|---|
| Power requirements: | DC 9V |
| Power consumption: | Approx. 1W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Dimensions: | 220(W) × 96(H) × × 265.5(D) mm (8 3/4 × 3 7/8 × 10 1/2 mm) |
| Mass: | Approx. 2.1kg (4 lb 10 oz) |

**Inputs**

| | |
|---|---|
| VIDEO INPUT 1 to 6: | BNC type, 1.0Vp-p, 75Ω, unbalanced, sync negative |
| DC IN: | DC jack type, DC 9V (DC 7V to 15V is permissible) |

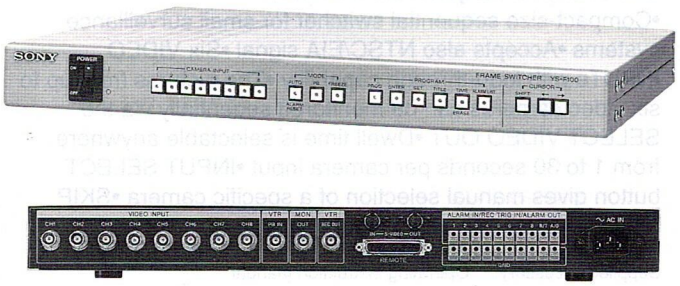
**Outputs**

| | |
|---|---|
| VIDEO OUTPUT 1 to 6: | BNC type, loop-through output of VIDEO INPUT, 75Ω termination ON/OFF switchable |
| SELECT VIDEO OUT: | BNC type, 1.0Vp-p, 75Ω, unbalanced, sync negative |

# YS-F100P

## Frame switcher

•Up to eight video inputs •Either asynchronous or synchronous, colour or monochrome cameras can be connected •Switching between connected cameras by a frame (1/25s) for precise monitoring of multiple surveillance points •Auto sequential monitoring via MON OUT connector •CAMERA INPUT select button allows independent playback of specific camera image •Freeze picture function •Long time recording with Time Lapse VCR •Y/C input and output connectors allow interconnecting with S-VHS VCR •Eight ALARM INPUTs, each corresponding to a CAMERA INPUT •Programable alarm recording type •Alarm monitor function automatically provides independent monitoring of channels on which alarms occur •Alarm hold time (duration of the alarm) can be set up to 30 min. by the second •Alarm switching time can be set from 0 to 30 sec. for multiple alarm inputs •Alarm memory recall provides an on-screen display of up to 100 alarm events including camera number, date and time information •Easy mode setting and checking on-screen display •Video input loss detection •Character superimpose function •Remote control capability via the D-sub 25-pin Remote Control Port in accordance with RS-232C standard




Supplied accessories: Rack mounting bracket (for EIA standard rack) (1 set)
Screw (×8)
AC power cord
Operating instruction manual

## Specifications

**General**

| | |
|---|---|
| Video signal system: | PAL standard |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | Less than 15W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Dimensions: | 430(W) × 44(H) × × 350(D)mm (17 × 1 3/4 × 13 7/8 inches) |
| Mass: | Approx. 4.0kg (9 lb 4 oz) |

**Video inputs**

| | |
|---|---|
| Camera input 1 to 8: | BNC type, VBS, 1.0Vp-p, 75Ω, RS-170, RS-107A |
| VTR input | BNC type, VBS, 1.0Vp-p, 75Ω |
| S-VHS Y/C input: | Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω |

**Video outputs**

| | |
|---|---|
| Monitor output | BNC type, VBS, 1.0Vp-p, 75Ω |
| VTR output | BNC type, VBS, 1.0Vp-p, 75Ω |
| S-VHS Y/C output | Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω |

**Others**

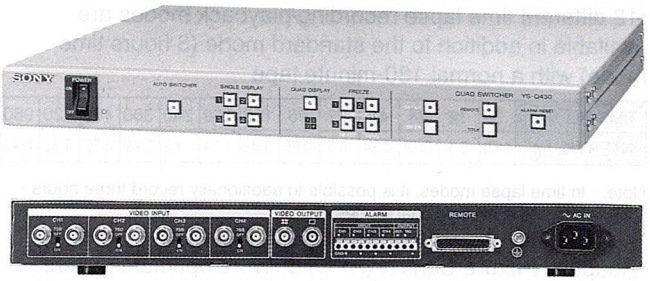
| | |
|---|---|
| Remote connector: | D-sub 25-pin<br>RS-232C<br>CH1-CH8, AUTO, P.B., FREEZE<br>TTL "L" level or MAKE |
| Alarm inputs: | External alarm 8 inputs<br>TTL "L" level or MAKE |
| Alarm output: | 1 logic output: TTL "L" level |
| Alarm hold time: | Selectable from 1s to 30min |
| Auto sequential switching time: | Selectable from 0 to 30s |
| Alarm switching time: | Selectable from 0 to 30s |
| Video memory: | 256K × 8bits |

SURVEILLANCE PRODUCTS

# YS-Q430P

## Quad switcher

•High performance Quad Image Splitter with a simple sequential switcher • Up to four compressed, split pictures can be simultaneously displayed on a single monitor and recorded on a single VCR •Automatic switching between up to four cameras can also be performed on a monitor with the selection of dwell time: 1, 2, 3, 4, 5, 6, 8 or 10 seconds •Either asynchronous or synchronous, colour or black & white cameras can be connected •8-bit signal processing and four field memories provide high picture quality compressed images •Up to eight characters can be superimposed onto each of the four compressed pictures •The built-in date and time generator allows time and date information to be displayed •Freeze picture function (Quad mode only) •Alarm function •Remote control capability via the D-sub 25-pin Remote Control Port in accordance with RS-232C standard




Supplied accessories: Rack mounting bracket (for EIA standard rack)
AC power cord
Operating instruction manual

### Specifications

| | |
|---|---|
| Video signal system: | CCIR/PAL standard |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | Less than 18W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | -20 to 60°C (-4 to 140°F) |
| Dimensions: | 430(W) × 44(H) × 350(D)mm<br>(17 × 1 3/4 × 12 7/8 inches)<br>(without projecting parts and controls) |
| Mass: | Approx. 4.3kg (9 lb 4 oz) |

**Input signals**

| | |
|---|---|
| Video input: | VIDEO INPUT CH1 to CH4 (BNC type) × 4,<br>1.0Vp-p, 75Ω, Loop-through (BNC type) × 4 |
| Video output: | VIDEO OUT (BNC type) × 1<br>Quadrant-picture image signal<br>1.0Vp-p, 75Ω<br>Outputs quadrant-picture images only<br>VIDEO OUT (BNC type) × 1<br>Sequential signal<br>1.0Vp-p, 75Ω<br>Outputs quadrant-picture images or the video signal from the selected input |
| Remote connector: | REMOTE (D-sub 25-pin connecotor provides RS-232C interface) |
| Alarm input: | ALARM IN terminal × 4<br>TTL "L" level or MAKE |
| Alarm output: | ALARM OUT terminal × 1<br>TTL "L" level<br>TRIGGER OUT terminal × 1 |
| Alarm hold duration: | 8 setttings: 5, 10, 20, 30, 60, 90, 120 or 180 sec. |
| Auto sequential duration: | 8 settings: 1, 2, 3, 4, 5, 6, 8 or 10 sec. |
| Picture tone: | 8-bit video (256 gradations) |

## SVT-5050P

### Colour time lapse videocassette recorder

•12 different time lapse recording/playback modes are available in addition to the standard mode (3 hours time mode) with a normal 180-minute tape

| TIME MODE (h) | 3 | 12 | 24 | 48 | 72 | 96 | 120 | 168 | 240 | 360 | 480 | 720 | 960 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL (s) | 1/50 | 0.1 | 0.18 | 0.34 | 0.5 | 0.66 | 0.82 | 1.14 | 1.62 | 2.42 | 3.22 | 4.82 | 6.42 |

Note: In time lapse modes, it is possible to additionally record three hours longer than the original modes.

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 3-hour mode can be played back by any VHS VCR •Audio recording and playback are possible in 3,12 and 24-hour modes •Built-in time and date generator allows a required scene to be easily searched by presetting the desired time and date •Multiple recording modes such as Auto Repeat Recording, Timer Recording, Alarm Recording, One-shot Recording and Series Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Recording check function •By using alarm recall/scan/search functions, pictures recorded during alarm mode can also be easily checked •Field-by-field picture playback capability •External timer input capability •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output capability •Warning signal output capability •Buzzer function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5mm mini jack

Supplied accessories: AC power cord
Operating instruction manual
Optional accessory: RS-232C interface board SVT-RS1A

### Specifications

**General**

Power requirements: AC 220 to 240V, 50/60Hz
Power consumption: 18W
Operating temperature: 5 to 40°C (41 to 104°F)
Operating humidity: Less than 80%
Dimensions: 420(W) × 100(H) × 349(D)mm ($16^5/_8 \times 4 \times 13^3/_4$ inches)
Mass: Approx. 5.5kg (12 lb 2 oz)
Tape speed: 23.39 mm/sec (3-hour mode)
Recording/playback time: 3, 12, 24, 48, 72, 96, 120, 168, 240, 360, 480, 720 and 960 hours (with an E-180 tape) (One shot mode is also available)
Alarm recording speed: 3, 12-hour mode, NC*1
Alarm recording duration: 20s, 40s, 1m, 2m, 3m, 4m, 5m, CC*2
Fast forward/rewind time: Approx. 4 minutes (with an E-180 tape)

**Video**

Recording system: Rotray two-head helical scanning system
Luminance signal: FM recording
Colour signal: Low-pass band-pass transformation direct recording
Input: 1.0Vp-p, 75Ω, unbalanced (BNC type)
Output: 1.0Vp-p, 75Ω, unbalanced (BNC type)
Horizontal resolution: Colour mode: More than 240TV lines
Black & White mode: More than 350TV lines
Signal-to-noise ratio: 43dB

**Audio**

Audio recording mode: 3, 12 and 24-hour mode
Input: –7.8dBs, 47kΩ (phono jack)
Output: –7.8dBs, 600Ω (phono jack)
Microphone input: –60dBs, 600Ω (ø3.5mm minijack)

**Others**

Alarm input: Low level
Alarm output: +5V, 5.7kΩ (Low active)
Switch output: +5V, 5.7kΩ (Low active)
Tape end output: +5V, 5.7kΩ (Low active)
Warning output: +5V, 5.7kΩ (Low active)
Timer output: +12V, 5.7kΩ (high active)
External timer input: Low level
Clock set output: +5V, 5.7kΩ (Low active)
Clock set input: Low level
Series output: +5V, 5.7kΩ (Low active)
Series input: Low level
One-shot input: Low level
Alarm reset: Low level
Control terminals: ø3.5mm mini jack
Optional RS-232C interface (D-sub 9-pin)

Notes: *1 No change of recording speed
*2 Stays an alarm for as long as the alarm input remains active.

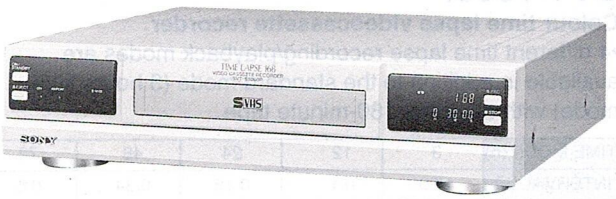
# SVT-S3000P

## Colour time lapse videocassette recorder

•High horizontal resolution of 400TV lines using S-VHS format •Excellent signal-to-noise ratio of 45dB •7 different time lapse recording/playback modes are available in addition to the standard mode (3 hours time mode) with a normal 180-minute tape

| TIME MODE (h) | 3 | 12 | 24 | 48 | 72 | 96 | 120 | 168 |
|---|---|---|---|---|---|---|---|---|
| INTERVAL (s) | 1/50 | 0.08 | 0.16 | 0.32 | 0.48 | 0.64 | 0.8 | 1.12 |

•A tape recorded in the 3-hour mode can be played back by any S-VHS or VHS VCR •Audio recording and playback are possible in 3, 12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability (Forward only) •On-screen display permits easy-to-follow operation •Auto head cleaning function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •Remote control capability of basic operational functions through ø3.5mm mini jack



Supplied accessories: AC power cord
Operating instruction manual

## Specifications

**General**

| | |
|---|---|
| Tape format: | S-VHS or VHS |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 22W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Operating humidity: | Less than 80% |
| Dimensions: | 420(W) × 100(H) × 340(D)mm (16 5/8 × 4 × 13 1/2 inches) |
| Mass: | Approx. 5.8kg (12 lb 13 oz) |
| Tape speed: | 23.39 mm/sec (3-hour mode) |
| Recording/playback time: | 3, 12, 24, 48, 72, 96, 120 and 168 hours (with an SE/E-180 tape) |
| Alarm recording speed: | 3, 12-hour mode, preset mode |
| Alarm recording duration: | 1m, 3m, CC* |
| Fast forward/rewind time: | Approx. 5 minutes (with an SE/E-180 tape) |

**Video**

| | |
|---|---|
| Recording system: | Rotray two-head helical scanning system<br>Luminance signal: FM recording<br>Colour signal: Low-pass band-pass transformation direct recording |
| Input: | VBS: 1.0Vp-p, 75Ω, unbalanced, sync negative (BNC type)<br>Y/C: (Mini DIN 4-pin)<br>Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω |
| Output: | VBS: 1.0Vp-p, 75Ω, unbalanced, sync negative (BNC type)<br>Y/C: (Mini DIN 4-pin)<br>Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω |
| Horizontal resolution: | 400TV lines |
| Signal-to-noise ratio: | 45dB |

**Audio**

| | |
|---|---|
| Audio recording mode: | 3, 12 and 24-hour mode |
| Input: | –7.8dBu, 100kΩ, unbalanced (phono jack) |
| Output: | –7.8dBu, 600Ω, unbalanced (phono jack) |
| Microphone input: | –60dBu, high impedance (ø3.5mm minijack) |

**Others**

| | |
|---|---|
| Alarm input: | No voltage contract closure activated |
| Alarm output: | +5V, 5.7kΩ |
| Tape end output: | +5V, 5.7kΩ |
| Switch output: | +5V, 5.7kΩ |
| Timer output: | +12V, 5.7kΩ |
| Control terminal: | ø3.5mm mini jack |

Notes: * Stays an alarm mode for as long as the alarm input remains active.

## SVT-1000P

**Colour time lapse videocassette recorder**

•4 different time lapse recording/playback modes are available in addition to the standard mode (3 hours time mode) with a normal 180-minute tape

| TIME MODE (h) | 3 | 12 | 24 | 48 | 72 |
|---|---|---|---|---|---|
| INTERVAL (s) | 1/50 | 0.1 | 0.18 | 0.34 | 0.5 |

Note: In time lapse modes, it is possible to additionally record three hours longer than the original modes.

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 3-hour mode can be played back by any VHS VCR •Audio recording and playback are possible in 3,12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/ Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Holiday setting function •Daylight Saving Time setting function •Recording check function •Field-by-field picture playback capability •External timer input capability •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output capability •Warning signal output capability •Buzzer function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5mm mini jack

Supplied accessories: AC power cord
Operating instruction manual
Optional accessory: RS-232C interface board SVT-RS1A

### Specifications

**General**

Power requirements: AC 220 to 240V, 50/60Hz
Power consumption: 18W
Operating temperature: 5 to 40°C (41 to 104°F)
Operating humidity: Less than 80%
Dimensions: 420(W) × 100(H) × 349 (D)mm
($16^{5}/_{8} \times 4 \times 13^{3}/_{4}$ inches)
Mass: Approx. 5.5kg (12 lb 2 oz)
Tape speed: 23.39 mm/sec (3-hour mode)
Recording/playback time:
3, 12, 24, 48 and 72 hours (with an E-180 tape)
Alarm recording speed: 3, 12-hour mode, NC*1
Alarm recording duration: 20s, 1m, CC*2
Fast forward/rewind time: Approx. 4 minutes (with an E-180 tape)

**Video**

Recording system: Rotray two-head helical scanning system
Luminance signal: FM recording
Colour signal: Low-pass band-pass transformation direct recording
Input: 1.0Vp-p, 75Ω, unbalanced, sync negative (BNC type)
Output: 1.0Vp-p, 75Ω, unbalanced, sync negative (BNC type)
Horizontal resolution: Colour mode: More than 240TV lines
Black & White mode: More than 320TV lines
Signal-to-noise ratio: 43dB

**Audio**

Audio recording mode: 3, 12 and 24-hour mode
Input: –7.8dBs, 47kΩ, unbalanced (phono jack)
Output: –7.8dBs, 600Ω, unbalanced (phono jack)
Microphone input: –60dBs, 600Ω (ø3.5mm minijack)

**Others**

Alarm input: Low level
Alarm output: +5V, 5.7kΩ (Low active)
Switch output: +5V, 5.7kΩ (Low active)
Tape end output: +5V, 5.7kΩ (Low active)
Warning output: +5V, 5.7kΩ (Low active)
External timer input: Low level
Control terminals: ø3.5mm mini jack
Optional RS-232C interface (D-sub 9-pin)

Notes: *1 No change of recording speed
*2 Stays an alarm for as long as the alarm input remains active.

SURVEILLANCE PRODUCTS

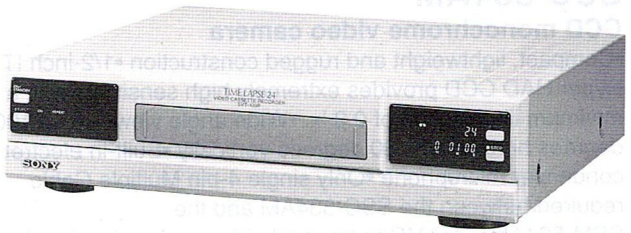
## SVT-100P

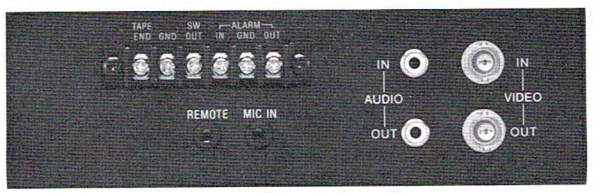
**Colour time lapse videocassette recorder**

•2 different time lapse recording/playback modes are available in addition to the standard mode (3 hours time mode) with a normal 180-minute tape

| TIME MODE (h) | 3 | 12 | 24 |
|---|---|---|---|
| INTERVAL (s) | 1/50 | 0.08 | 0.16 |

•A tape recorded in the 3-hour mode can be played back by any VHS VCR •Audio recording and playback are possible in 3, 12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability (Forward only) •On-screen display permits easy-to-follow operation •Power-failure protection for at least 15 days •Security lock function for avoiding accidental operation errors •Remote control capability of basic operational functions through ø3.5mm mini jack




Supplied accessories: AC power cord
Operating instruction manual

### Specifications

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 18W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Operating humidity: | Less than 80% |
| Dimensions: | 420(W) × 100(H) × 340(D)mm (16 5/8 × 4 × 13 1/2 inches) |
| Mass: | Approx. 5.6kg (12 lb 6 oz) |
| Tape speed: | 23.39 mm/sec (3-hour mode) |
| Recording/playback time: | 3, 12 and 24 hours (with an E-180 tape) |
| Alarm recording speed: | 3-hour mode |
| Alarm recording duration: | 1m, 3m, CC* |
| Fast forward/rewind time: | Approx. 5 minutes (with an E-180 tape) |

**Video**

| | |
|---|---|
| Recording system: | Rotray two-head helical scanning system<br>Luminance signal: FM recording<br>Colour signal: Low-pass band-pass transformation direct recording |
| Input: | 1.0Vp-p, 75Ω, unbalanced, sync negative (BNC type) |
| Output: | 1.0Vp-p, 75Ω, unbalanced, sync negative (BNC type) |
| Horizontal resolution: | Colour mode: More than 230TV lines<br>Black & White mode: More than 300TV lines |

**Audio**

| | |
|---|---|
| Audio recording mode: | 3, 12 and 24-hour mode |
| Input: | –7.8dBu, 100kΩ, unbalanced (phono jack) |
| Output: | –7.8dBu, 600Ω, unbalanced (phono jack) |
| Microphone input: | –60dBu, high impedance (ø3.5mm minijack) |

**Others**

| | |
|---|---|
| Alarm input: | No voltage contract closure activated |
| Alarm output: | +5V, 5.7kΩ |
| Tape end output: | +5V, 5.7kΩ |
| Switch output: | +5V, 5.7kΩ |
| Control terminal: | ø3.5mm mini jack |

Notes: *Stays an alarm mode for as long as the alarm input remains active.

# SSC-534AM

## CCD monochrome video camera

•Compact, lightweight and rugged construction •1/2-inch IT Hyper HAD CCD provides extremely high sensitivity with a minimum illumination of 0.3 lx. •Wide angle view—a full 100 degrees horizontally, 80 degrees vertically •Built-in electret condenser microphone •Only single 4-pin Multiple Cable required between the SSC-534AM and the SSM-504AM/724AMR to transmit video and audio signals, together with DC power

| | |
|---|---|
| Supplied accessories: | Camera bracket |
| | Rubber cap |
| | Adhesive |
| | Self-fusing tapes (2) |
| | 3mm Allen key |
| | 4mm washers (4) |
| | Angle adjusting screws (4) |
| | 5mm hexagon head bolts (5) |
| | 5mm washers (5) |
| | Rubber nuts (5) |
| | Operating instruction manual |
| Optional accessories: | Camera cable VK-110A/120A (10m/20m) |
| | Water-resistant extension cable |
| | VK-305 (5m) |
| | Water-resistant camera cable |
| | VK-310A/320A (10/20m) |

### Specifications

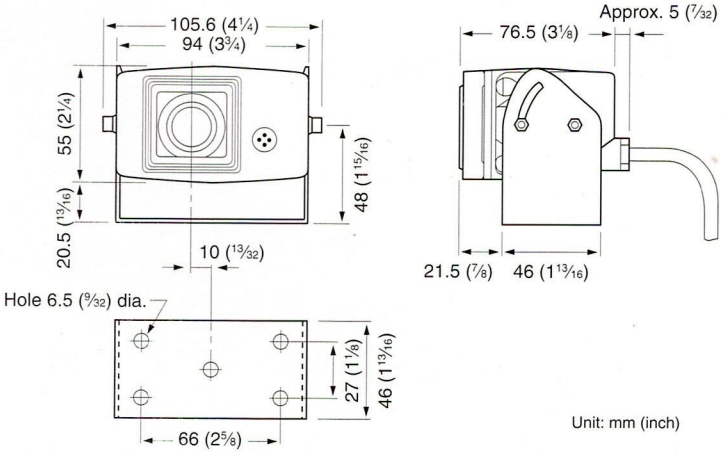
| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 500(H) × 582(V) |
| Sensing area: | 6.3mm × 4.7mm |
| Lens: | f=3.0 mm, F1.6 with auto-iris |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal |
| Horizontal resolution: | 380TV lines |
| Minimum illumination: | 0.3 lx |
| Signal-to-noise ratio: | 50dB (AGC OFF) |
| Video/audio output: | 4-pin Multi-connector |

❶ DC input
❷ Video output: 1.0Vp-p, 75Ω, sync negative
❸ Ground
❹ Audio output: -5dBu (436mVrms), less than 10kΩ, unbalanced

| | |
|---|---|
| Power requirements: | DC 12V |
| Power consumption: | 1.2W (at DC 12V) |
| Operating temperatures: | -20 to 70°C (-4 to 158°F) |
| Storage temperatures: | -30 to 85°C (-22 to 185°F) |
| Mass: | 550g (1 lb 3 oz) |

SURVEILLANCE PRODUCTS

**Dimensions**




Unit: mm (inch)

# SSM-504AM/724AMR

## 5-inch/7-inch monochrome monitor

•Offers bright, clear and high-contrast pictures •Compact, lighweight and rugged construction •Built-in speaker •Day/Night switch adjusts picture brightness for normal or low-light conditions •Automatic back-up operation •Only a single 4-pin Multiple Cable required between the SSC-534AM and the SSM-504AM/724AMR to transmit video and audio signals, together with DC power

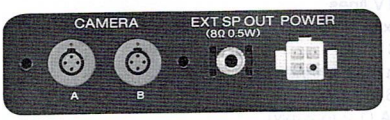
## Exclusive features for SSM-724AMR

•Semi-flat square/non-glare CRT •Audio output connection for an optional external speaker •Dual camera inputs •Alternative power supply mode (DC 12/24V)

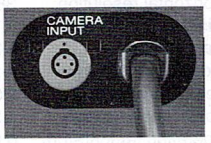
SSM-724AMR

SSM-504AM

| | |
|---|---|
| Supplied accessories: | Mounting bracket<br>Screws (4)<br>Bolts (4)<br>Washers (12)<br>Spring washers (8)<br>Nuts (4)<br>Power supply cable<br>Bracket holder<br>Operating instruction manual<br>Montor scale (SSM-724AMR only) |
| Optional accessory: | Monitor Hood WU-500AM (for SSM-504AM)<br>Monitor Hood WU-700AM (for SSM-724AMR) |




SSM-724AMR




SSM-504AM

## Specifications

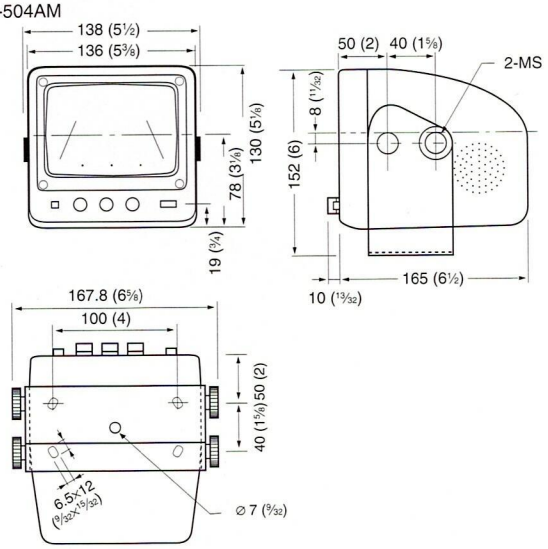
| | |
|---|---|
| Video signal system: | CCIR standard |
| Picture tube: | 5-inch/7-inch B/W measured diagonally 90 degree deflection |
| Speaker: | ø50mm (2-inch) Impedance 8Ω,<br>SSM-504AM: 0.3W output (max.),<br>SSM-724AMR: 0.5W OUTPUT (max.) |
| Video/audio input: | 4-pin Multi-connector |

❶ 12V DC output
❷ Video input: 1.0Vp-p, 75Ω, sync negative
❸ Ground
❹ Audio input: -5dBu (436mVrms) more than 30kΩ, unbalanced

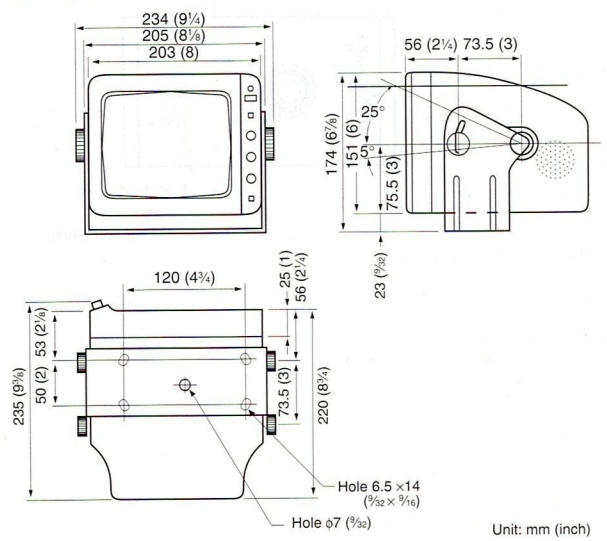
| | |
|---|---|
| Output: | External speaker jack (mini jack)<br>(SSM-724AMR only), impedance 8Ω |
| Power requirements: | SSM-504AM: DC 12V<br>SSM-724AMR: DC 12V or 24V |
| Power consumption: | SSM-504AM: 8W<br>SSM-724AMR: 23W |
| Operating temperature: | -15 to 60°C (5 to 140°F) |
| Storage temperature: | -25 to 80°C (-13 to 185°F) |
| Mass: | SSM-504AM: Approx. 2.5kg (5 lb 8 oz)<br>SSM-724AMR: Approx. 3.2kg (7 lb) |

**Dimensions**

SSM-504AM




SSM-724MR




Unit: mm (inch)

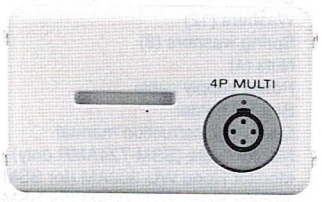
SURVEILLANCE PRODUCTS

# HVM-354

## CCD monochrome Video Camera

•The easy-to-use WatchCam series video camera especially designed for surveillance applications •1/2-inch IT Hyper HAD CCD adoption •Buit-in 11mm F1.8 auto lens with a picture angle of 35 degrees (measured diagonally) •AGC (Automatic Gain Control) is standard •Built-in mini bayonet mount for wide-angle and pin-hole lens adaptors •Compact and lightweight design for versatile applications •Built-in electret condenser microphone •4-pin video/audio/power/ ground multi-connector •Optional HVA-435 Camera Adaptor converts the 4-pin multi-connector into BNC connector, phono connector and two DC connections

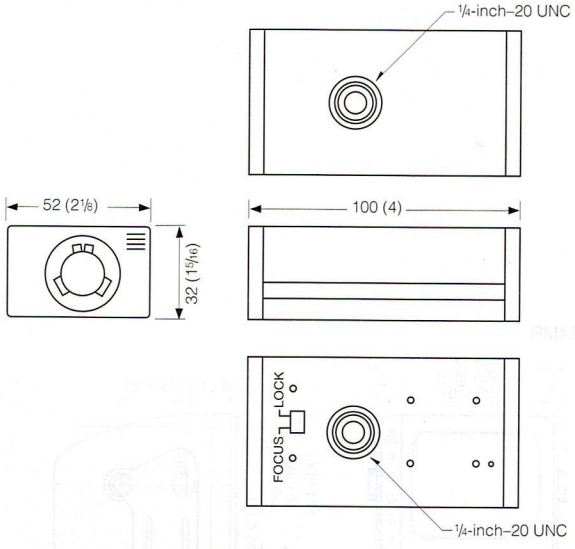
Supplied accessory: Operating instruction manual




## Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 500(H) × 582(V) |
| Sensing area: | 6.4mm × 4.8mm |
| Lens: | f=11mm, F1.8, auto-iris with special mini bayonet mount, detachable |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal |
| Horizontal resolution: | 380TV lines |
| Minimum illumination: | 0.7 lx at F1.8 |
| Gain Control: | AGC |
| Video/audio output: | 4-pin multi-connector |
| Power requirements: | DC 6 to 12V |
| Power consumption: | 0.23A (1.2 to 2.4W) |
| Operating temperature: | 0 to 40°C (32 to 104°F ) |
| Mass: | 220g (7.8 oz) |

**Dimensions**




Unit: mm (inch)

SURVEILLANCE PRODUCTS

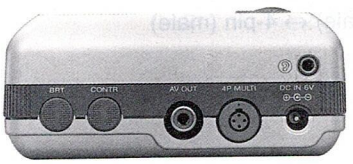
# FDM-404A

## 4-inch flat display monitor

•Miniature 4-inch flat-screen monitor for use with the HVM-354 WatchCam camera •Compact body for portable or desktop use •Unique flat-display design for high space efficiency •4-pin cable camera connection for power, audio, video and ground •A/V uniconnector for output for VCR recording or multiple monitor applications •Built-in 1.5-inch speaker

### Specifications

| | |
|---|---|
| Video signal system: | CCIR standard |
| Picture tube: | Flat B/W 4-inch measured diagonally |
| Speaker: | 1.5-inch |
| Audio output: | 0.05W (7.2Ω) |
| inputs: | 4-pin Multi-connector<br>DC IN 6V jack |
| Outputs: | AV OUT jack (AV uniconnector)<br>Video output: 1.0Vp-p, 75Ω<br>Audio output: –5dBu (436mVrms), more than 30kΩ<br>Earphone jack (minijack) |
| Power requirements: | DC 6V |
| Power consumption: | 3.3W |
| Mass: | 720g (2 lb) |
| Dimensions: | 110 × 46 × 210mm<br>($4^{3}/_{8} \times 1^{13}/_{16} \times 8^{3}/_{8}$ inches) |



## HVA-435

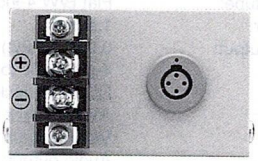
### Camera adaptor

•Converts the 4-pin multi-connector into BNC connector, phono connector and DC connections (Standard jack/Twin terminals)

Supplied accessory: Operating instruction manual

### Specifications

| | |
|---|---|
| Camera input: | 4-pin Multi-connector<br>DC in/Video out/Ground/Audio out |
| Video output: | BNC connector, 1.0Vp-p, 75Ω, sync negative |
| Audio output: | Phono connector<br>Max. output –5dBu (436mVrms) |
| Power input: | Standard jack: DC 6 to 12V<br>Twin terminals: DC 6 to 12V |
| Mass: | 85g (3 oz) |
| Dimensions: | 53 × 33 × 70mm<br>($2^1/_8 \times 1^5/_{16} \times 2^7/_8$ inches)<br>(including connectors and DC terminals) |




## VK-110

### Extension cable (10m)

•For extending cable runs in WatchCam camera and monitor systems

•4-pin multi (female) ↔ 4-pin (male)

## VK-110A/120A

### Connecting cable (10/20m)

•For connecting WatchCam camera and monitor systems

•4-pin Multi (male) ↔ 4-pin Multi (male)

SURVEILLANCE PRODUCTS

# 7-3. Watchcam system accessories

## VCL-06PH
### Pin-hole lens

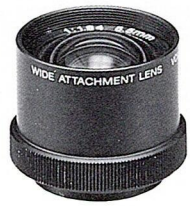
| | |
|---|---|
| Focal length: | f=5.95mm |
| F No.: | F1.8 (when attached to the camera) |
| Picture angle: | Approx. 56° (horizontal)<br>Approx. 43° (vertical) |
| Lens structure: | 7 groups, 9 elements |
| Mount: | Special bayonet mount |
| Mass: | 71g (2.5 oz) |
| Dimensions: | ø30 × 78mm<br>($1^{3}/_{16} \times 3^{1}/_{8}$ inches)<br>(incl. projecting parts) |

## VCL-04HS
### Wide angle supplementary lens
• Designed to obtain a wide-angle of view (approx. 110°)

| | |
|---|---|
| Focal length: | f=3.6mm |
| F No.: | F1.85 (when attached to the camera) |
| Picture angle: | Approx. 110° (diagonally, when attached to the camera) |
| Lens structure: | 4 groups, 5 elements |
| Mount: | Special bayonet mount |
| Mass: | 43g (1.4 oz) |
| Dimensions: | ø31 × 23.6mm<br>($1^{1}/_{4} \times {}^{15}/_{16}$ inches)<br>(incl. projecting parts) |

## VCL-06HS
### Wide angle supplementary lens
•Designed to obtain a wide-angle of view (Approx. 70°)

| | |
|---|---|
| Focal length: | f=5.5mm |
| F No.: | F1.84 (when attached to the camera) |
| Picture angle: | Approx. 70° (diagonally, when attached to the camera) |
| Lens structure: | 3 groups, 3 elements |
| Mount: | Special bayonet mount |



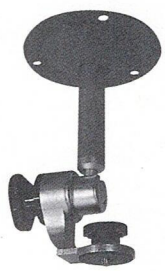

SURVEILLANCE PRODUCTS

## T-301/305/307
### Mount bracket
•T-301 - Suitable for mounting housed or unhoused cameras, T-305/307 - Only accept unhoused cameras for installation

| | | |
|---|---|---|
| Maximum load: | 10kg | |
| Length: | T-301: | 260mm + 150mm |
| | T-305: | Min.275mm/Max.405mm |
| | T-307: | 160mm |
| Mass: | T-301/305: | 0.7kg |
| | T-307: | 0.6kg |

T-301

T-305



T-307

# SECTION 10 VIDEOCONFERENCING SYSTEM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**2. Videoconferencing system accessories** .....258

# PCS-5000P

## TriniCom 5000 Rollabout package

•Designed for small-group meeting (2 to 6 persons per location) •Complies with the ITU-T H.261 standard for Video Coding, and the G.722/711/728 for Audio Coding •ISDN BRI or switched or dedicated digital networks (for 56 to 384kbps) can be used for communication interface •Quartet conference capability for holding videoconferences involving up to four locations •Wireless remote commander and on-screen menu icons assure easy operation •High-resolution 1/3-inch CCD camera provides excellent picture reproduction and features an adjustable pan/tilt head for flexible remote control •Rollabout processor combines an ITU-T standard video/audio CODEC, system controller, communication network interface and echo canceller all into one unit •A second monitor can be added to display documents and graphics with the optional PCS-G500P Dual Monitor Board •High-resolution monochrome documents and full-colour still video pictures can be transmitted and displayed •The optional PCS-T500 Drawing Tablet for pointing or drawing on a document or still video •Automatic Lip Sync on/off function •Automatic dialing function

## Basic system configuration

•PCS-5000P Rollabout Package - Camera unit, Rollabout processor, Audio unit, Remote commander
•PCS-F500 Cabinet
•Super Trinitron colour TV monitor

| | |
|---|---|
| Supplied accessories: | Camera Unit Stand |
| | S-video cable (1m) |
| | Audio unit cable (10m) |
| | Camera unit cable (2m) |
| | IR repeater |
| | ISDN cable (3m) |
| | AC power cord (for Rollabout processor, 2.5m) |
| | Size AA alkaline batteries for remote commander |
| | Operation manual |
| Optional accessories: | PCS-A510* Audio unit |
| | PCS-F500 Cabinet |
| | PCS-F510 Cabinet (for 34 inch monitor) |
| | PCS-G500P Dual monitor board |
| | PCS-R500* Remote commander |
| | PCS-R510 Key commander |
| | PCS-T500 Drawing tablet |
| | PCS-I500 V.35 Board |
| | PCS-I510 X.21 Board |
| | PCS-I520 RS-449 Board |
| | PCS-I530 I-MUX (BONDING Inverse Multiplex) Board Board |
| | PCS-MC10 Memory card |
| | PCS-K21 Printer cable |
| | PCS-K32 V.35 Cable |
| | PCS-K40 RS-449 Cable |
| | PCS-K60 S-video Cable |
| | PCS-K70 X.21 Cable |

* For additional use only

## Specifications

| | |
|---|---|
| **General** | |
| Power requirements: | AC220 to 240V, 50/60Hz |
| Power consumption: | 0.5A |
| Operating temperature: | 5 to 35°C (41 to 95°F) |
| Operating humidity: | 20% to 80% |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Storage humidity: | 20% to 80% |
| **Motion video** | |
| Operating bandwidth: | 56k(64k) to 384kbps in 56k or 64kbps increments |
| Coding: | H.261 (ITU-T standard) |
| Picture elements: | CIF: 352 pixels × 288 lines<br>QCIF: 176 pixels × 144 lines |
| Video signal system: | PAL standard<br>(As complies to H.261 standard, PCS-5000P can communicate directly with PCS-5000 and vice versa.) |
| **Audio** | |
| Bandwidth and coding: | G.722: 7.0kHz at 48k to 64kbps<br>G.711: 3.4kHz at 56k / 64kbps<br>G.728: 3.4kHz at 16kbps |
| Cable length: | 10m (from Rollabout Processor to Audio Unit) |
| Expandability: | Max. three audio units can be used simultaneously. |
| **Camera** | |
| Image device: | 1/3-inch CCD |
| Picture elements: | 752 pixels × 582 lines |
| Preset: | Up to 6 positions (Pan/tilt/zoom) |
| Focal length: | 3.8 to 45.4mm |
| Focus: | Auto/manual switchable |
| Iris: | Auto |
| Zoom ratio: | 12 x |
| Output signal: | S-video |
| Pan control: | ±25°, motor-driven |
| Tilt control: | +5°, –10°, motor-driven |
| Resolution: | More than 420TV lines |
| Signal to noise ratio: | 45dB |
| Far-end control: | Zoom (tele/wide), focus (auto/manual), pan (right/left), Tilt (up/down) |
| **Graphics** | |
| Resolution: | 704 pixels × 576 lines |
| Input signals: | S-video (Used in common with inputs for motion) video (×2), Composite (x1), RGB (×1), (with optional PCS-G500P) |
| Output signal: | RGB Monitor out (×1), S-video (×2) Composite (×1) (with optional PCS- G500P) |
| Compression method: | JPEG (Joint Photographic Expert Group)<br>H.261 Annex D (CIF × 4) |
| Transmitting time: | Approx. 15s at 112 to 384kbps |
| Storage capacity: | Max. 30 pages (color) in total for both documents and graphics |
| **Document** | |
| Resolution: | Processing: 200dpi (8dots/mm)<br>(1728 dots × 2376 dots on A4 paper)<br>Display on monitor: 704 pixel × 576 lines with 16 gray scale |
| Input signal: | SCSI interfaced to document scanner |
| Output signal: | Centronics interfaced to laser-beam printer<br>(HP LaserJet4 P/4PJ, HP LaserJet4 plus) |
| Printing time: | Approx. 1min/A4 |
| Paper size: | A4 |
| Display scanning: | 15.625kHz, black and white with 16 gray scale |
| Compression method: | MMR (Modified Modified READ) |
| Transmitting time: | Approx. 7s at 112k to 384kbps |
| Scanning time: | Approx. 8s with A4 paper |
| Manipulations: | Rotation: 90° step |
| Size: | ×1, ×2, ×4 |
| Scroll: | Vertical up and down, horizontal right and left |
| Storage capacity: | Max. 30 pages (B/W) in total for both document and graphics |
| **Picture–in–Picture** | |
| Sub screen size: | 1/9 |
| Position: | One of four corners |
| Motion video mode: | Main screen: motion video of remote site |
| Sub screen: | motion video of local site |
| Document mode: | Main screen: document |
| Sub screen: | motion video of remote site |
| Graphics mode: | Main screen: graphics<br>Sub screen: motion video of remote site |
| **Pointing and Drawing** | |
| Input device: | RS-232C interfaced Drawing Tablet (PCS-T500)<br>electromagnetic tablet and pen system |
| Pointer: | Finger mark |
| Line thickness: | 3 sizes |
| Eraser: | All or partial erase |
| Colour: | White/red/green for graphics<br>Black/white for documents |

# 1. Videoconferencing system

**Transmission**

| | |
|---|---|
| Multiplexing: | Video, audio, data |
| Frame Format: | ITU-T H.221 |
| Interface: | ISDN (BRI) × 3 (Max. 6B), ×.21 × 2, V.35 × 2 with RS-366, RS-449 x1, I-Mux× (BONDING Inverse Mux) |
| Rate: | ISDN: 56/64k to 384kbps in 54/64kbps increments |
| V.35: | 56/64k to 384kbps in 54/64kbps increments |
| Dual V.35: | 56kbps × 2, 64kbps × 2 |
| RS-449: | 56/64k to 384kbps in 54/64kbps increments |
| X.21: | 56/64k to 384kbps in 54/64kbps increments |
| Dual X.21: | 56kbps × 2, 64kbps × 2 |
| I-Mux: | 168k to 384kbps |

**User data port**

| | |
|---|---|
| RS-232C: | 1200/4800/9600bps/19.2kbps |
| Lip synchronization | Auto or Manual ON/OFF |

**Echo cancellation**

| | |
|---|---|
| Audio bandwidth: | 7kHz |

**Diagnostics**

| | |
|---|---|
| Local operation: | Remote commander or data terminal |
| Remote operation: | Data terminal via modem through analog telephone network |

**Remote commander**

| | |
|---|---|
| Signal format: | Infrared SIRCS |
| Keys: | Direction pad with Execute, Power On, Mic Mute keys |
| Power: | AA Alkaline battery (×2) |

**Dimensions and mass**

| Model Name | Dimensions (W × H × D) | Mass |
|---|---|---|
| PCS-5000P: | Rollabout processor: 190 × 340 × 310 mm ($7^1/_2 \times 13^1/_2 \times 12^1/_4$ inches)<br>Audio unit:276 × 83 × 185mm ($10^7/_8 \times 3^3/_8 \times 7^3/_8$ inches)<br>Camera unit: 216 × 104 × 168.5mm] ($8^5/_8 \times 4^1/_8 \times 6^3/_4$ inches)<br>Remote commander: 42 × 30 × 182mm ($11^1/_{16} \times 1^3/_{16} \times 7^1/_4$ inches) | 9.0kg (19 lb 13 oz)<br>1.0kg (2 lb 3 oz)<br>1.4kg (3 lb 1 oz)<br>0.13kg (6 oz) |
| PCS-F500 | 590 × 760 × 703mm ($23^1/_4 \times 30 \times 27^3/_4$ inches) | 33.0kg (72 lb 12 oz) |
| PCS-F510 | 800 × 760 × 788mm ($31^1/_2 \times 30 \times 31^1/_8$ inches) | 52.0kg (114 lb 10 oz) |
| PCS-T500 | 330 × 13.9 × 243mm ($13 \times {}^9/_{16} \times 9^5/_8$ inches) | 0.95kg (2 lb 2 oz) |
| PCS-G500P | 135 × 28.5 × 242mm ($5^3/_8 \times 1^1/_8 \times 9^5/_8$ inches) | 0.3kg (11 oz) |
| PCS-A510 | 276 × 83 × 185mm ($10^7/_8 \times 3^3/_8 \times 7^3/_8$ inches) | 1.0kg ( 2 lb 3 oz) |
| PCS-R500 | 42 × 22 × 183mm ($1^{11}/_{16} \times {}^7/_8 \times 7^1/_4$ inches) | 0.13kg (6 oz) |
| PCS-R510 | 89 × 35.6 × 197mm ($3^5/_8 \times 1^1/_2 \times 7^7/_8$ inches) | 0.25kg (8 oz) |
| PCS-I500 | 135 × 28.5 × 242mm ($5^3/_8 \times 1^1/_8 \times 9^5/_8$ inches) | 0.25kg (9 oz) |
| PCS-I510 | 135 × 28.5 × 242mm ($5^3/_8 \times 1^1/_8 \times 9^5/_8$ inches) | 25kg (9 oz) |
| PCS-I520 | 135 × 28.5 × 242mm ($5^3/_8 \times 1^1/_8 \times 9^5/_8$ inches) | 0.2kg (7 oz) |
| PCS-I530 | 104 × 28.5 × 110mm ($4^1/_8 \times 1^1/_8 \times 4^3/_8$ inches) | 0.2kg (7 oz) |

* For further information, please contact your nearest Sony office.

# PCS-4000P

## TriniCom 4000 Rollabout Package

•High performance videoconferencing system with the basic features •Easy to upgrade to the equivalent level of the Trinicom 5000 using optional Upgrade cards (PCS-UC400 and PCS-UC410) •Designed for a small-group meeting •Simple to operate

Basic features for the PCS-4000P;

- •Flexible networking interfaces
- •ITU-T standards protocols
- •Movable picture-in-picture function
- •Flexible camera operation with pan/tilt and 12× zoom lens
- •Camera preset function with up to six positions
- •Employs Annex D compression method for still image transmission
- •Enriched on-screen messages in six languages (English/German/Spanish/French/Italian/Japanese)
- •Full-duplex Echo Canceller makes videoconferencing conversations as natural as face-to-face encounters
- •Computer interface capability with RS-232C interface ports
- •Remote diagnostic capability

Optional accessories:

PCS-UC400 Upgrade Card
(for 'Quartet conference capability' and 6B)
PCS-UC410 Upgrade Card
(for MMR/JPEG Still Image)
PCS-A510* Audio unit
PCS-F500 Cabinet
PCS-G500P Dual monitor board
PCS-R500* Remote commander
PCS-F510 Cabinet (for 34 inch monitor)
PCS-R510 Key commander
PCS-T500 Drawing tablet
PCS-I500 V.35 Board
PCS-I510 X.21 Board
PCS-I520 RS-449 Board
PCS-I530 I-MUX (BONDING Inverse Multiplex) Board
PCS-MC10 Memory card
PCS-K21 Printer cable
PCS-K32 V.35 Cable
PCS-K40 RS-449 Cable
PCS-K60 S-video Cable
PCS-K70 X.21 Cable

*For additional use only

## Specifications

**General**

| | |
|---|---|
| Power requirements: | AC220/240V, 50/60Hz |
| Power consumption: | 0.5A |

**Motion Video**

| | |
|---|---|
| Operating bandwidth: | 56k(64k) to 128kbps in 56k or 64kbps increments (option: Up to 384kbps) |
| Coding: | H.261 (ITU-T standard) |
| Picture elements: | CIF: 352 pixels × 288 lines |
| QCIF: | 176 pixels × 144 lines |
| Video signal system: | PAL standard |
| Input signals: | S-video (×2)*, Composite (×1)* *Used in common with inputs for graphics |
| Output signals: | S-video (×1), Composite (×1) |

**Audio**

| | |
|---|---|
| Bandwidth and coding: | G.722: 7.0kHz at 48k to 64kbps<br>G.711: 3.4kHz at 56k / 64kbps<br>G.728: 3.4kHz at 16kbps |
| Cable length: | 10m (from Rollabout Processor to Audio Unit) |
| Expandability: | Max. three audio units can be used simultaneously |

**Camera**

| | |
|---|---|
| Image device: | 1/3-inch colour CCD |
| Picture Elements: | 752 pixels × 582 lines |
| Preset: | Up to 6 positions (Pan/tilt/zoom) |
| Focal length: | 3.8 to 45.4mm |
| Focus: | Auto/manual switchable |
| Iris: | Auto |
| Zoom ratio: | 12× |
| Output signal: | S-video |
| Pan control: | ±25°, motor-driven |
| Tilt control: | +5°, −10°, motor-driven |
| Far-end control: | Zoom (tele/wide), focus (auto/manual), pan (right/left), tilt (up/down) |

**Graphics**

| | |
|---|---|
| Resolution: | 704 pixels × 576 lines |
| Compression method: | H.261 Annex D (CIF × 4) |
| Picture-in-Picture | |
| Sub screen size: | 1/9 |
| Position: | One of four corners |

**Transmission**

| | |
|---|---|
| Rate: | ISDN: 56/64k to 128kbps in 54/64kbps increments (Option: Up to 384kbps) |

**User Data Port**

| | |
|---|---|
| RS-232C: | 1200/4800/9600bps/19.2kbps |

# PCB-500P

## PC Conference Kit

•Designed for personal data communication on PC environment •Employs high quality video camera with excellent picture quality and 60° viewing angle •Complies with the ITU-T H.320 standard for video coding •Video quality adjustment in 31 steps •Scaleable video windows •Picture-in-picture and picture-out-picture function •Hands-free operation via the camera unit's built-in microphone •A supplied handset •Lip sync function and echo suppressor •Plug-and-play capability for easy installation •A simple yet comprehensive icon menu for easy and intuitive operation •PC phone function •Telephone directory function •Supports T.120 •Supports Databeam FarSite™ software •Application sharing on either PC •File transfer capability •White-board capability

| | |
|---|---|
| PCB-500P Kit: | PC conference board<br>Camera unit<br>Handset<br>PC Conference software ("FarSite" included) |
| Supplied accessories: | Cable for audio adapter (0.14m x1)<br>ISDN cable (1.8m x2)<br>Audio adapter<br>Cable for handset<br>Operating instructions<br>Camera cable<br>Camera stand<br>AC power adapter for camera unit<br>Installation manual |

## Specifications

**General**

| | |
|---|---|
| Operating temperature: | 0°C to 40°C |
| Operating humidity: | 20% to 80% (based on room temperature of 25°C) |
| Preserving temperature: | -25°C to 80 °C |
| Preserving humidity: | 10% to 80% (without condensation) |
| Power requirement: | DC5V, ±5% |
| Power consumption: | 0.6A |
| Dimensions: | PC conference board:<br>126 (W) × 22 (H) × 176 (D) mm<br>(5 × 7/8 ×7 inches)<br>Camera unit:<br>75 (W) × 35 (H) × 98 (D) mm<br>(3 × 1 7/16 × 3 7/8 inches)<br>Handset:<br>45 (W) × 43 (H) × 205 (D) mm<br>(1 13/16 × 1 3/4 × 8 1/8 inches) |
| Mass: | PC conference board: 160g (5.6 oz)<br>Camera unit: 142g (4.9 oz)<br>Handset: 120g (4.2 oz) |

**Transmission**

| | |
|---|---|
| Transfer rate: | ISDN 56k to 128kbps<br>(Max. 384kbps using optional Promptus board)<br>LAN 128kbps/256kbps/384kbps (requires LAN board)<br>H.323 software upgradable |

**Video**

| | |
|---|---|
| Compression: | ITU-T standard H.261 compatible |
| Transmitted resolution: | FCIF: 352 × 288 pixels up to 15 frames/sec.<br>QCIF: 176 × 144 pixels up to 30 frames/sec. |
| Video input: | Camera-1/Camera-2 inputs switchable via software<br>NTSC/PAL auto detection |
| SVGA resolution: | All SVGA resolutions with 32k or 64k colours |
| Software-controlled features: | Contrast, hue, brightness and colour control<br>Video quality adjustment<br>Scaleable screen size (fixed aspect ratio 4:3) |

**Audio**

| | |
|---|---|
| Compression: | ITU-T standard: G.711 3.4kHz at 56kbps<br>G.728 3.4kHz at 16kbps |
| Audio input: | Telephone handset supplied; built-in microphone in camera unit |
| Audio output: | Line-level output<br>Sound Blaster card with multimedia speakers |
| Software-controlled features: | Volume control and mute<br>Echo suppression |

**Camera**

| | |
|---|---|
| Image sensor: | 1/4 inch CCD |
| Effective pixels: | 270k pixels (effective: 250k) |
| Lens: | f = 3.9mm/F1.8 |
| Angle of view: | 60 degrees |
| White balance: | Auto |
| Min. illumination: | 9 lx. |
| Video out: | RCA pin jack, 1.0Vp-p composite |
| Power requirement: | DC 4.5V, 1.5W |

* IBM is a trademark of IBM Corporation.
* Pentium is a trademark of Intel Corporation.
* Windows is a registered trademark of the Microsoft Corporation.
* FarSite is a trademark of Databeam Corporation.

## PCS-A510

### Audio unit for PCS-5000P and PCS-4000P

•Additional audio unit for the PCS-5000P and the PCS-4000P •Covers a total of five to six attendants in a conference

Supplied accessories: Joint cable (mini DIN 8-pin ↔ mini DIN 8-pin, 3m)

Bandwidth: 7.0kHz
Power: Supplied from the Rollabout processor (+12V)
Mass: 1.0kg (2 lb 3 oz)
Dimensions: 276(W) × 83(H) × 185(D)mm ($10^{7}/_{8} \times 3^{3}/_{8} \times 7^{3}/_{8}$ inches)

## PCS-F500

### Cabinet for PCS-5000P and PCS-4000P

•Holds the rollabout processor and supports virtually any size monitor for the PCS-5000P and the PCS-4000P.

Mass: 33.0kg (72 lb 12 oz)
Dimensions: 590 (W) × 760 (H) × 703 (D)mm ($23^{1}/_{4} \times 30 \times 27^{3}/_{4}$ inches)

*This product may not be available in some areas.

## PCS-F510

### Cabinet for 34 inch monitor for PCS-5000P and PCS-4000P

•Holds the rollabout processor and a 34 inch monitor for the PCS-5000P and the PCS-4000P

Mass: 52.0kg (114 lb 10 oz)
Dimensions: 800(W) × 760(H) × 788(D)mm ($31^{1}/_{2} \times 30^{1}/_{8} \times 31^{1}/_{8}$ inches)



## PCS-G500P

### Dual monitor board for PCS-5000P and PCS-4000P

•Adds a second monitor to the PCS-5000P and the PCS-4000P to display documents and graphics in a dual-monitor system

Supplied accessories:
IR repeater

Mass: 0.3kg (10 oz)
Dimensions: 135(W) × 28.5(H) × 242(D)mm ($5^{3}/_{8} \times 1^{1}/_{8} \times 9^{5}/_{8}$ inches)

## PCS-R500

**Remote commander for PCS-5000P and PCS-4000P**

•Additional remote commander for the PCS-5000P and the PCS-4000P

Mass: 0.13kg (4.6 oz)
Dimensions: 42(W) × 22(H) × 183(D)mm
($11^{1}/_{16} \times ^{7}/_{8} \times 7^{1}/_{4}$ inches)

## PCS-R510

**Key Commander for PCS-5000P and PCS-4000P**

•Additional remote key commander for the PCS-5000P and the PCS-4000P

Mass: 0.3kg (6 oz)
Dimensions: 89 (W) × 197 (H) × 40 (D)mm
($3^{5}/_{8} \times 7^{7}/_{8} \times 1^{5}/_{8}$ inches)

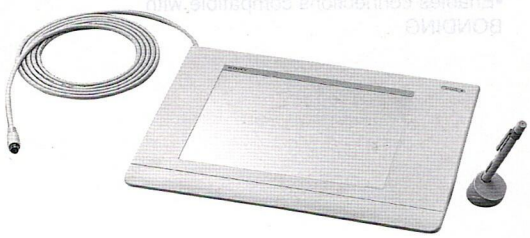
## PCS-T500

**Drawing tablet for PCS-5000P and PCS-4000P**

•Allows PCS-5000P and PCS-4000P users to point or draw on the document or still video

Supplied accessories:
Tablet cable (2.5m)
Operation manual

Mass: 0.95kg (2 lb 2 oz)
Dimensions:
330(W) × 13.9(H) × 243(D)mm
($13 \times ^{9}/_{16} \times 9^{5}/_{8}$ inches)



## PCS-I500

**V.35 Interface Board for PCS-5000P and PCS-4000P**

•Provides a V.35 line interface

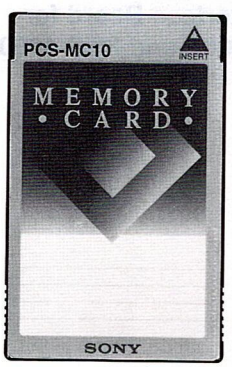
## PCS-I510
**X.21 Interface Board for PCS-5000P and PCS-4000P**
•Provides an X.21 line interface

## PCS-I520
**RS-449 Interface Board for PCS-5000P and PCS-4000P**
•Provides an RS-449 line interface

## PCS-I530
**I-MUX Interface Board for PCS-5000P and PCS-4000P**
•Enables connections compatible with BONDING



## PCS-MC10
**Memory Card for PCS-5000P and PCS-4000P**
•Records up to 30 still pictures



## PCS-K21

**Printer Cable for PCS-5000P and PCS-4000P**

•Connects the Rollabout Processor and a printer (3m, 9.8 ft)

## PCS-K32

**V.35 Conversion Connector Cable for PCS-5000P and PCS-4000P**

•Connects the V.35 connector (V.35 interface board PCS-I510) to the terminal adapter (1m, 3.3 ft)

## PCS-K40

**RS-449 Conversion Connector Cable for PCS-5000P and PCS-4000P**

•Connects the Rollabout Processor to the terminal adapter in the RS-449 line interface
(1m, 3.3 ft)

## PCS-K60

**S-video cord for PCS-5000P and PCS-4000P**

•Cord for connecting video equipment with S-video connector

## PCS-K70

### X.21 Conversion Connector Cable for PCS-5000P and PCS-4000P

•Connects the X.21 connector (X.21 interface board PCS-I510) to the terminal adapter (1m, 3.3 ft)

## PCS-UC500

### Upgrade Card for PCS-5000P and PCS-4000P

•Supports T.120 for data conference for the PCS-5000P and the PCS-4000P.

Mass: 30g (1.0 oz)
Dimensions: 54 (W) × 85.6 (H) × 3.3 (D)mm ($2^{1}/_{4} \times 3^{3}/_{8} \times {}^{5}/_{32}$ inches)

## PCS-UC400

### Upgrade Card for PCS-4000P

•Adds multi-party meeting function to the PCS-4000P and allows connection of 3B to 6B using three ISDN lines

## PCS-UC410

### Upgrade Card for PCS-4000P

•Adds still picture (JPEG) and document (MMR) functions to the PCS-4000P

# SECTION 11 OTHER VIDEO EQUIPMENT AND ACCESSORIES


1. Peripheral equipment.....264
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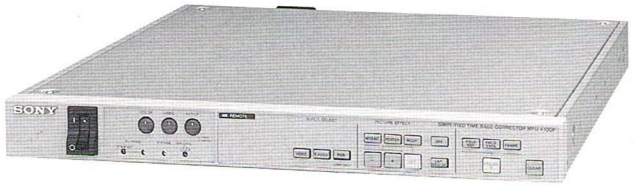
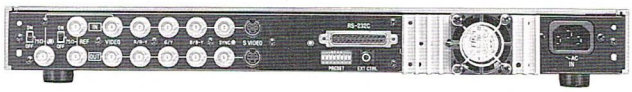
3. System consols.....273
4. Connecting cables.....274

# MPU-F100P

## Simplified time base corrector

•Accepts asynchronous video signals, locks them with the house sync and outputs synchronous video signals •Time base error corrections to eliminate skew errors and jitter •SC (Sub Carrier) and H (Horizontal sync) phase control •Multiple Inputs/Outputs; composite video, component video (RGB or Y/R-Y/B-Y selectable) and Y/C (S-video) separate video signals •Simple picture effects functions; MOSAIC, POSTERIZATION and MULTI-PICTURE (3 × 3) •External genlock capability for composite video or black burst signal •Synchronization with the timing of the camera signal output of Sony DXC-930P 3-CCD colour video camera in a low speed shutter mode (shutter speed: 1 to 255 frames in Field Mode, 2 to 256 frames in Frame Mode), suited for image processing or analysis applications •Video signal control; colour level, video level and setup level of the composite and Y/C separate video signals •Three levels of noise reduction for still pictures •RS-232C interface for external computer control •19-inch rack mountable with the supplied rack mount adaptor





Supplied accessories: AC power cable
Rack mount kit
Operation manual
Interface manual

### Specifications

**General**

| | |
|---|---|
| Power requirement: | AC 220V, 230V, 240V, 50Hz |
| Power consumption: | Max. 0.2A |
| Dimensions: | 424(W) × 54(H) × 446(D)mm<br>($18^{3}/_{4} \times 2^{1}/_{8} \times 17^{5}/_{8}$ inches) |
| Mass: | 6.5kg (14 lb 5 oz) |

**Video inputs**

| | |
|---|---|
| Composite video: | 1.0Vp-p, 75Ω (BNC) with loop-through |
| S-Video: | Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω (DIN 4-pin) |
| R.G.B.: | 0.7Vp-p, 75Ω (BNC × 3)* |
| Sync: | 4.0Vp-p, 75Ω (BNC) |
| Y/R-Y/B-Y: | Y: 1.0Vp-p, 75Ω<br>R-Y: 0.7Vp-p, 75Ω<br>B-Y: 0.7Vp-p, 75Ω (BNC × 3)*<br>* RGB or Y/R-Y/B-Y is selectable. |
| Reference video: | 1.0Vp-p, 75Ω (composite video or black burst signal, with loop-through) |

**Video outputs**

| | |
|---|---|
| Composite video: | 1.0Vp-p, 75Ω (BNC) with loop-through |
| S-Video: | Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω (DIN 4-pin) |
| R.G.B.: | 0.7Vp-p, 75Ω (BNC × 3)* |
| Sync: | 4.0Vp-p, 75Ω (BNC) |
| Y/R-Y/B-Y: | Y: 1.0Vp-p, 75Ω<br>R-Y: 0.7Vp-p, 75Ω<br>B-Y: 0.7Vp-p, 75Ω (BNC × 3)*<br>* RGB or Y/R-Y/B-Y is selectable. |

**Control signal input/output**

| | |
|---|---|
| RS-232C: | RS-232C, D-sub 25-pin female for micro computer control |
| External control: | Mini jack |

**Memory**

| | |
|---|---|
| Memory input: | Odd field, Even field, Frame |
| Frame memory: | Y:R-Y:B-Y = 4:1:1 |

**Video**

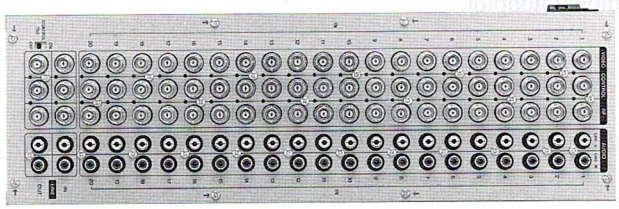
| | |
|---|---|
| Picture effects: | LAP DISSOLVE (transition time: 1.5s)<br>MOSAIC<br>POSTERIZATION<br>MULTI-PICTURE (3 × 3) |
| Gen lock: | H phase: -0.5 to +1μs<br>SC phase: 0° to 360° |

Note: When the MPU-F100P is synchronized with the timing of the camera signal output of the DXC-930P/950P (in the low speed shutter mode), CCMC-9DSMN cable is required additionally.

# VCS-1000

## Video selector

•For use in combination with the SVRM-960 Bi-directional remote controller for high quality picture monitoing •Minimizes the signal reflections caused by long cable runs •Up to 20 SVO-965P equipped with the SVBK-902 optional Bi-directional interface board can be connected to a single VCS-1000 •Loop-through output is provided for connection of up to 50 VCS-1000 units •19-inch EIA rack mountable in various directions •On-Line indicator •When the power is turned off, the LINE OUT becomes a loop-through output of the LINE IN for easy maintenance



Supplied accessories: Mounting brackets (EIA 2U width × 2, DIA 3U width × 2)
AC power cord
Operation manual

## Specifications

**General**

Mass: Approx. 4kg (8 lb 13 oz)
Dimensions: 424(W) × 88(H) × 132(D)mm
($16^{3}/_{4} \times 3^{1}/_{2} \times 5^{1}/_{4}$ inches)
Power requirements: AC 220 to 240V, 50/ 60Hz
Power consumption: 8.5W max.
Maximum number of VTR connection:
20 units

**Video**

Video signal system: EIA/CCIR monochrome, NTSC/PAL colour
Frequency response: 6MHz, 100kHz reference
S/N ratio: More than 54dB

**Audio**

Frequency response: 20Hz to 20kHz, 1kHz -10dBu standard
S/N ratio: More than 85dB

**RF video**

Frequency response: 6MHz
S/N ratio: More than 54dB

**Video inputs/outputs**

Video in (from SVO-965P):
BNC (×20), 1Vp-p, sync negative, 37.5Ω, unbalanced
Line in video (from previous VCS-1000):
BNC, 1Vp-p, sync negative, 75Ω unbalanced
Line out video (to SVRM-960 or next VCS-1000):
BNC, 1Vp-p, sync negative, 75Ω unbalanced

**Control inputs/outputs**

Control input (from SVO-965P): BNC (×20)
Rx*1 input: 1Vp-p, 37.5Ω unbalanced
Tx*2 output: 1.4Vp-p, 37.5Ω unbalanced
Line in control (from previous VCS-1000):
BNC,
Tx intput: 1Vp-p, 37.5Ω, unbalanced
Rx output: 1Vp-p, 37.5Ω, unbalanced
Line out control (to SVRM-960 or next VCS-1000):
BNC,
Tx input: 1Vp-p, 37.5Ω unbalanced
Rx output: 1Vp-p, 37.5Ω, unbalanced

**RF**

RF IN (from the SVO-965P):
BNC (×20), 1Vp-p, 37.5Ω, unbalanced
Line IN RF (from previous VCS-1000):
BNC, 1Vp-p, 75Ω, unbalanced
Line Out RF (to SVRM-960 or next VCS-1000):
BNC, 1Vp-p, 75Ω unbalanced

**Audio inputs/outputs**

Audio Input (from SVO-965P):
Phono (2-channel × 20), high impedance, unbalanced
Line In audio (from previous VCS-1000):
Phono (2-channel), high impedance, unbalanced
Line Out audio (to SVRM-960 or next VCS-1000):
Phono (2-channel), high impedance, unbalanced

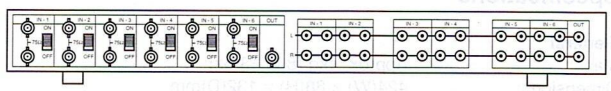
*1: Rx: Signal output from the SVRM-960
*2: Tx: Signal output from the SVO-965P

## ⓈVCS-63A

### Video and audio selector

•A video and audio (stereo) signal can be selected from the six video and audio sources.
•Equipped with the loop-through out connectors for each input signal.
•When two or more selectors are connected in parallel, using the loop-through capability, a camera or VTR signal can be selected independently.
•Can be mounted into a 19-inch EIA standard rack using the supplied rack mount adaptor.

Dimensions: Approx. 424(W) × 44(H) × 170(D)mm (16¾ × 1¾ × 6¾ inches)
Mass: Approx. 3kg (6 lb 10 oz)
Connectors: VIDEO IN/OUT—BNC type
AUDIO IN/OUT—PHONO
Supplied accessories:
Rack mount adaptor × 2
Screw for rack mounting × 4



## SRP-200DA

### AV Distribution Amplifier

•Can distribute an AV input signal in five ways •The 75Ω terminator of the video input is automatically disconnected when a cable is connected to the stacking terminal. Up to four units can be connected in parallel
•Can be mounted into a 19-inch EIA standard rack

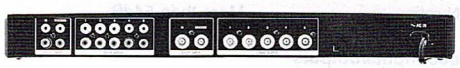
**General**
Dimensions: 482(W) × 44(H) × 175(D)mm (19 × 1¾ × 7 inches)
Mass: 2.5kg (5 lb 8 oz)
Power supply: AC 230V, 50Hz/60Hz
Power consumption: 5W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: -20 to +60°C (-4 to +140°F)

**Video Performance**
DG: Less than 0.5%
DP: Less than 0.5°
Input: 75Ω/high impedance (high impedance at stacking output) BNC connector x1
Outputs: 75Ω, BNC connector ×5 (high impedance at stacking output)

**Audio performance**
Frequency response: 20Hz to 20kHz
harmonic distortion: Less than 0.005%

**Inputs**
One stereo: Reference level: -10dBu
Max. input level: +10dBu
Impedance: 47kΩ
Type: Phono jack
Circuit: Unbalanced

**Outputs**
Five stereo:Reference level: -10dBu
Max. output level: +10dBu
Impedance: 47kΩ
Type: Phono jack
Circuit: Unbalanced

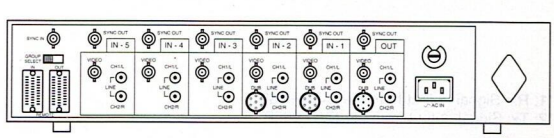


## VCS-500

### Video and audio switcher with blanking switch facility

•The system using the VCS-500 can operate synchronically with the external sync or the video signal connected to the VIDEO IN-1 connector. The signal can be switched in the blanking portion so that switching noise is eliminated
•Up to five video and audio signals can be controlled
•Remote control is possible when an RM-V5 VTR selector is used
•DUB circuit switching function
•Can be mounted into 19-inch EIA standard rack

Inputs: Video—1Vp-p of rating, 75Ω, unbalanced, sync negative
Sync—3V ±1Vp-p, 75Ω, unbalanced, negative
Audio—LINE IN CH-1/CH-2, -5dB of rating, 47kΩ
Outputs: Video—Rated input ±0.2Vp-p, 75Ω, unbalanced, sync negative
Sync—3V ±1Vp-p, 75Ω, unbalanced, negative
Audio—LINE OUT CH-1/CH-2, rated input ±2dB, 47kΩ
Frequency response:
Video ±1dB (up to 6MHz)
Audio 50 to 15,000Hz ±1dB
Connectors:VIDEO IN/OUT—BNC
SYNC IN/OUT—BNC
AUDIO IN/OUT—Phono
REMOTE IN/OUT—20-pin
DUB IN/OUT—7-pin
Power requirements:
AC 100/110/120/127/220/240V ±10% (selectable), 50/60Hz
Power consumption: 20W
Dimensions:480(W) × 87(H) × 280(D)mm (19 × 3½ × 11⅛ inches)
Mass: 7kg (15 lb 7 oz)
Supplied accessories:
AC power cord
Screw for rack mounting

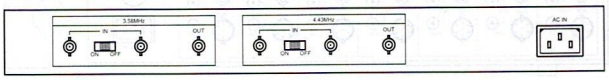


## ⓈCFC-120

### Colour frequency converter

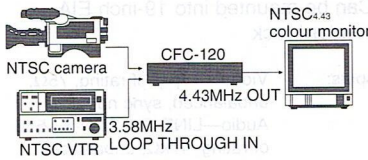
•Designed to be used with European standard U-matic videocassette tape recorders
•Converts NTSC colour signals (subcarrier 3.58MHz) into NTSC4.43 signals (subcarrier 4.43MHz) or vice versa

Video input/output:
1Vp-p ±3dB, composite, 75Ω
Operating temperature:
0 to 40°C (32 to 104°F)
Power requirements:
AC 220 to 240V, 50/60Hz
Power consumption:
7W
Dimensions: 424(W) × 44(H) × 250(D)mm
($16^{7}/_{8} \times 1^{3}/_{4} \times 9^{7}/_{8}$ inches)
Mass: 4.2kg (9 lb 4 oz)

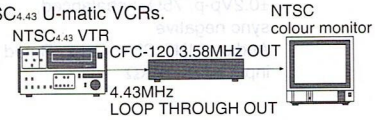


Input/output connectors:
3.58MHz LOOP THROUGH IN to BNC × 2
3.58MHz OUT to BNC × 1
4.43MHz LOOP THROUGH IN to BNC × 2
4.43MHz OUT to BNC × 1
Supplied accessories:
AC power cord
Rack mount kit
Rack mounting bracket × 2
Ornamental washer × 4
Screw+RK 5 × 14 × 4
Operating manual × 1

1. To provide NTSC colour signals to NTSC4.43 colour monitors.




2. To connect NTSC colour monitors with NTSC4.43 U-matic VCRs.

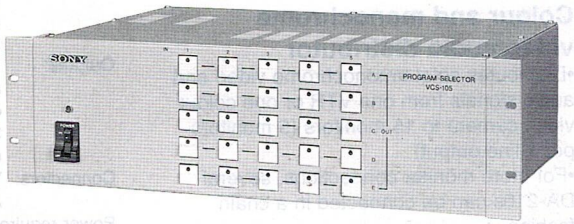


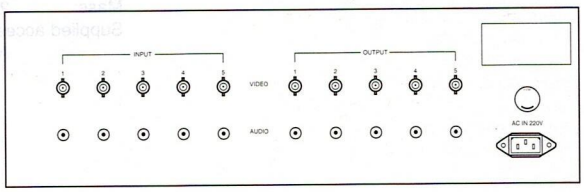

## ⓈVCS-105

### Program selector with blanking switch facility

•VCS-105: 5 inputs—5 outputs
•Each output is selectable independently from the inputs

| | | |
|---|---|---|
| Video in | Connector | BNC × 5 |
| | Signal level | 1Vp-p, 75Ω |
| Video out | Connector | BNC × 5 |
| | Signal level | 1Vp-p, 75Ω |
| | Frequency response | 6MHz within ±3dB |
| | S/N | Better than 45dB |
| | Cross talk | Better than 40dB |
| Audio in | Connector | Phono × 5 |
| | Signal level | –5dB, high impedance, unbalanced |
| Audio out | Connector | Phono × 5 |
| | Signal level | –5dB, high impedance, unbalanced |
| | Distortion | Less than 3% |
| | Frequency response | 50Hz to 20kHz |
| | S/N | Better than 45dB |
| | Cross talk | Better than 45dB |
| Power requirements | | AC 220V ±10%, 50/60Hz |
| Power consumption | | 15W |
| Dimension | | 482(W) × 132(H) × 270(D)mm ($19 \times 5^{1}/_{4} \times 10^{3}/_{4}$ inches) |
| Mass | | 8.5kg (18 lb 12 oz) |
| Supplied accessories | | Extension board<br>AC power cord<br>Rack mount metal (1 pair) |




## DA-1400

### Video/audio distributor

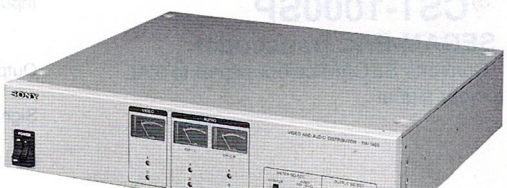
•Two video/audio inputs and fourteen distribution outputs •Four distribution patterns are available: Input signal A (1 to 14 ch), Input signal B (1 to 14 ch), Input signal A (1 to 7 ch)/Input signal B (8 to 14 ch), Input signal B (1 to 7 ch)/Input signal A (8 to 14 ch) •Loop-through output connector for each input signal to expand the connection with other DA-1400s •Video/audio level meters for adjusting and confirming the output signal levels •Audio input level selector (-10dB/-6dB) •19-inch EIA standard rack mountable

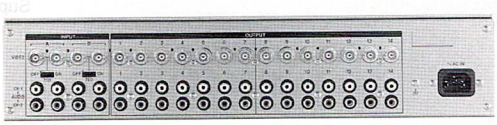
Supplied accessories:
AC power cord
Mounting brackets
(EIA 2U width: 1 pair)
Operation manual

**General**
Mass: 6kg (13 lb 23 oz)
Dimensions: 424(W) × 88(H) × 350(D)mm
($16^{3}/_{4} \times 3^{1}/_{2} \times 13^{7}/_{8}$ inches)
Power requirements:
AC 220 to 240V, 50/60Hz
Power consumption:
16W

**Video**
Inputs: Loop-through, BNC (×2), 1Vp-p, 75Ω, sync negative
Outputs: BNC (×14), 1Vp-p, 75Ω, sync negative
S/N ratio: Better than 60dB
Frequency response:
10MHz ± 1dB

**Audio**
Inputs: Loop-through, Phono (2-channel) (×2)
Input level: –10dBu/–6dBu switchable, 50kΩ
Outputs: Phono (2-channel) (×14)
Output level: –10dBu/–6dBu, 100Ω
S/N ratio: Better than 70dB at 600Ω
Frequency response:
20Hz to 20kHz ±1dB
Distortion: Less than 0.1%, -10dBu at 1kHz



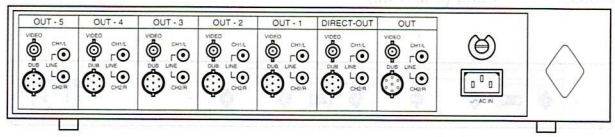



## DA-500

### Colour and monochrome video/audio distributor with DUB connectors

•Five Video/DUB/Audio outputs and one direct output
•DUB connectors are furnished so that a high quality video signal will be obtained
•Up to four DA-500s can be connected in series so that the input signal can be divided into as many as 20 separate signals
•Can be mounted into 19-inch EIA standard rack

Inputs: Video—1Vp-p of rating, 75Ω, unbalanced, sync negative
Audio—LINE CH-1/CH-2, -5dB of rating, 47kΩ, unbalanced
Outputs: Video—OUT 1 to 5, Rated input ±0.2Vp-p, 75Ω, unbalanced, sync negative
Audio—LINE CH-1/CH-2, Rated input ±2dB, 47kΩ
Connectors: VIDEO IN/OUT, DIRECT OUT—BNC
AUDIO IN/OUT, DIRECT OUT—Phono
Power requirements:
AC 100/110/120/127/220/240V ±10% (selectable), 50/60Hz
Power consumption:
20W
Dimensions: 480(W) × 87(H) × 280(D)mm (19 × 3 1/2 × 11 1/8 inches)
Mass: 6.1kg (13 lb 7 oz)
Supplied accessories:
AC power cord
Screw for rack mounting

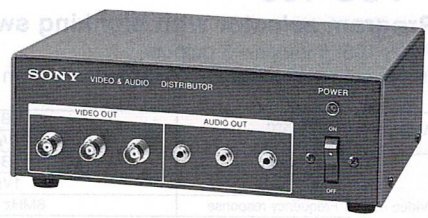


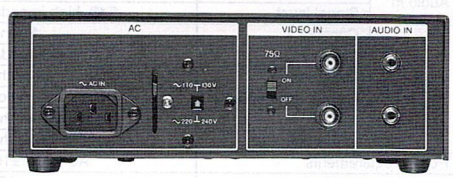

## ⓈDA-210

### Colour and monochrome video/audio distributor

•Distributes colour/monochrome video and audio signals from one VTR or one colour video camera to 15 monitors (5 monitors per 1 line output)
•For more monitor connections, several DA-210s can be connected in a chain fashion

Inputs: Video—1Vp-p, 75Ω, unbalanced, sync negative
Audio—Impedance: more than 20kΩ, unbalanced, 0dB
Outputs: Video—1Vp-p, 75Ω, sync negative, 1 bridge output, 3 line outputs Audio—1 bridge output, 3 line outputs, high impedance, unbalanced, 0dB
Connectors: VIDEO IN/OUT—BNC
AUDIO IN/OUT—Mini
Power requirements:
AC 110 to 130/220 to 240V selectable, 50/60Hz
Power consumption:
4W
Dimensions: 214(W) × 75(H) × 170(D)mm (8 1/2 × 3 × 6 3/4 inches)
Mass: 2kg (4 lb 7 oz)
Supplied accessory:
AC power cord



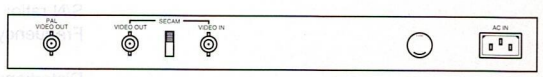




## ⓈCST-1000SP

### SECAM-PAL transcoder

•Converts SECAM colour signal to PAL colour signal

Input signal: SECAM colour composite 1Vp-p, 75Ω switchable of high impedance for loop-through
Output signal:
PAL colour composite, 1Vp-p, 75Ω
Signal conversion method:
Decode/encode
Input/Output connector:
BNC
Power requirements:
AC 220V ±10%, 50/60Hz
Power consumption:
15VA
Operating temperature:
0 to 45°C (32 to 113°F)
Dimensions: 424(W) × 44(H) × 250(D)mm (16 3/4 × 1 3/4 × 9 7/8 inches)
Mass: 4kg (8 lb 13 oz)
Supplied accessories:
AC power cord (×1)
Fuse (315mAT) (×1)
Rack mount metals (×1 set)



## VA-200E

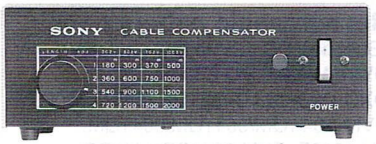
### Cable compensator for stable colour/monochrome video transmission

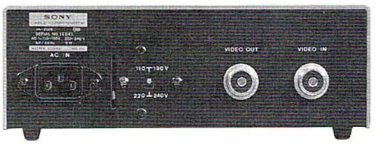
•Compensates for the attenuation caused by long-distance transmission of colour/monochrome video signals with a coaxial cable
•Especially effective for the transmission of colour video signals

**Length adjustments**

| | 3C-2V | 5C-2V | 7C-2V | 10C-2V |
|---|---|---|---|---|
| 1 | 180m | 300m | 370m | 500m |
| 2 | 360m | 600m | 750m | 1000m |
| 3 | 540m | 900m | 1100m | 1500m |
| 4 | 720m | 1200m | 1500m | 2000m |

Video input: 1.0Vp-p to 1.4Vp-p 75Ω, unbalanced
Video output: 1Vp-p, 75Ω, unbalanced
Frequency response: Flat to 4.5MHz ±2dB
Operating temperature: 0 to 40°C (32 to 104°F)
Connectors: VIDEO IN/OUT—UHF (M-type)
Power requirements: AC 110 to 130/220 to 240V selectable, 50/60Hz
Power consumption: 6W
Dimensions: 214(W) × 75(H) × 171(D)mm (8 1/2 × 3 × 6 3/4 inches)
Mass: 1.4kg (3 lb 4 oz)
Supplied accessory: AC power cord




## PVS-820S

### Matrix switcher

•Eight inputs and two outputs matrix functions •Reference video input
•Equipped with a LOCK SWITCH to prevent inadvertent operation •Can be mounted in a 19-inch EIA standard rack

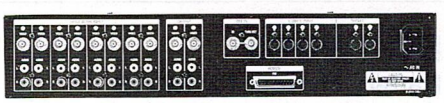
Supplied accessory: Power cable x1

**General**
Power supply: AC 230V, 50/60Hz
Power consumption: 17W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: –20 to 60°C (–4 to 140°F)
Mass: 4kg (8 lb 13 oz)
Dimensions: 482(W) × 88(H) × 220(D)mm (19 × 3 1/2 × 8 3/4 inches)

**Audio Signals**
Inputs: Type: Phono
Number of channels: eight (stereo)
Impedance: 75Ω
Reference level: –10dBu
Max. input level: +10dBu
Outputs: Type: Phono
Number of channels: two (stereo)
Impedance: 470Ω
Reference level: –10dBu
Max. output level: +10dBu
Load impedance: More than 10kΩ
Frequency response: 20Hz to 20kHz, +0.1/–0.5dB
Total harmonic distortion: Less than 0.005%

**Video signals**
Composite
Inputs: Type: BNC
Number of channels: eight
Impedance: 75Ω
Outputs: Type: BNC
Number of channels: two
Impedance 75Ω
Reference video: Type: BNC
Number of input: two
Impedance: 47kΩ
Max. input level: 4Vp-p
Frequency response: 100kHz to 10MHz, +0.3/–1dB
DG: Less than 0.5%
DP: Less than 0.5%

**S-Video**
Inputs: Type: 4-pin mini DIN
Number of channels: four**Interlocked with channels to 1 to 4 of VIDEO IN (composite)
Impedance: 75Ω
Outputs: Type: 4-pin mini DIN
Number of channels: two
Impedance: 75Ω
Frequency response: 100kHz to 10MHz



## PVS-880S

### Matrix switcher

•Eight inputs and eight outputs matrix functions •RS-232C interface port for remote control from a personal computer
•Reference video input •Memory function
•Equipped with a LOCK SWITCH to prevent inadvertent operation •Can be mounted in a 19-inch EIA standard rack

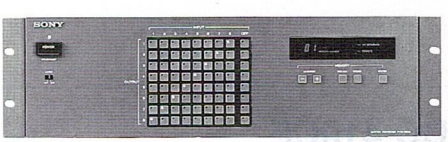
Supplied accessory: Power cable x1

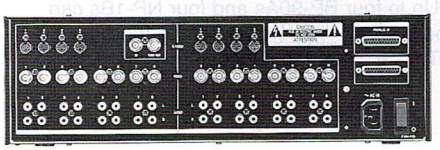
**General**
Power supply: AC 230V, 50/60Hz
Power consumption: 17W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: –20 to 60°C (–4 to 140°F)
Mass: 10kg (22 lb 1 oz)
Dimensions: 482(W) × 132(H) × 350(D)mm (19 × 5 1/4 × 13 7/8 inches)

**Audio signals**
Inputs: Type: Phono
Number of channels: eight (stereo)
Impedance: 47kΩ
Reference level: –10dBu
Max. input level: +16dBu
Outputs: Type: Phono
Number of channels: two (stereo)
Impedance: 470Ω
Reference level: –10dBu
Max. output level: +16dBu
Load impedance: More than 10kΩ
Frequency response: 20Hz to 20kHz, +0.1/–0.5dB
Total harmonic distortion: Less than 0.005%

**Video signals**
Composite
Inputs: Type: BNC
Number of channels: eight
Impedance: 75Ω
Outputs: Type: BNC
Number of channels: eight
Impedance: 75Ω
Reference video: Type: BNC
Number of inputs: two
Impedance: 47kΩ
Max. input level: 4Vp-p
Frequency response: 100kHz to 10MHz, +0.8/-0.3dB
DG: Less than 0.5%
DP: Less than 0.5%

**S-Video**
Inputs: Type: 4-pin mini DIN
Number of channels: four*
*Interlocked with channels to 1to 4 of VIDEO IN (composite)
Impedance: 75Ω
Outputs: Type: 4-pin mini DIN
Number of channels: four
Impedance: 75Ω
Frequency response: 100kHz to 10MHz



## NP-1B

### Rechargeable battery pack

•Supplies DC 12V to DSR-1P, PVV-3P, UVW-100BP, VO-8800P, DXC-D30P/637P/327BP, EVW-300P, PVM-9044QM/9041QM/6041QM, TU-1040E, EVM-9010PR/1410PR

| | |
|---|---|
| Battery used: | NiCd battery |
| Output voltage: | DC 12V |
| Capacity: | 2.3 Ah |
| Dimensions: | Approx. 72(W) × 25(H) × 185(D)mm ($2^{7}/_{8} \times 1 \times 7^{3}/_{8}$ inches) |
| Mass: | Approx. 600g (1 lb 5 oz) |

## BP-90A

### Rechargeable battery pack

•Supplies DC 12V to DSR-1P, PVV-3P, UVW-100BP, PVM-9044QM/9041QM/6041QM, TU-1040E

| | |
|---|---|
| Type of battery: | NiCd rechargeable |
| Voltage: | DC 12V |
| Current capacity: | 5Ah |
| Dimensions: | 123(W) × 171(H) × 37(D)mm ($4^{7}/_{8} \times 6^{3}/_{4} \times 1^{1}/_{2}$ inches) |
| Mass: | 1.6kg (31 lb 8 oz) |

## BC-1WDCE

### Battery charger for NP-1B

•Battery charger for the NP-1B battery pack •Up to four NP-1B batteries can be charged •Auto refresh function •Battery life indication •Skips charging process for fully charged batteries

| | |
|---|---|
| Power requirements: | AC 220 to 240V ±10%, 50/60Hz |
| Power consumption: | 65W |
| Charging time: | Approx. 90min |
| Dimensions: | 107.5(W) × 88(H) × 325(D)mm ($4^{1}/_{4} \times 3^{1}/_{2} \times 12^{7}/_{8}$ inches) |
| Mass: | Approx. 1.7kg (3 lb 5 oz) |

## BC-410CE

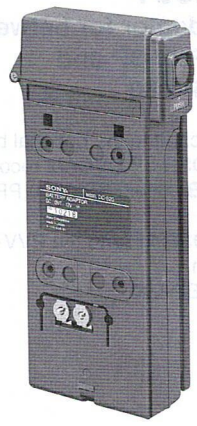
### Battery charger for BP-90A/NP-1B

•Battery charger for BP-90A and NP-1B •Up to four BP-90As and four NP-1Bs can be charged •Battery refreshing function •Trickle charge to avoid self-discharge

| | |
|---|---|
| Power requirements: | AC 220/240V selectable, 50/60Hz |
| Power consumption: | 75W |
| Charging time: | BP-90A: 160 min<br>NP-1B: 90 min |
| Dimensions: | 212(W) × 85(H) × 325(D)mm ($4^{1}/_{2} \times 3^{3}/_{8} \times 12^{7}/_{8}$ inches) |
| Mass: | 4kg (8 lb 13 oz) |
| Supplied accessories: | AC power cord<br>Operation/maintenance manual |

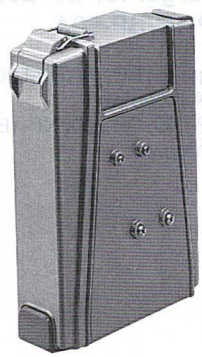
## DC-520
### Battery adaptor for NP-1B
•Can be attached to the supplied battery case of the DSR-1P, PVV-3P Betacam SP 2000PRO recorder UVW-100BP
•Allows the DSR-1P, PVV-3P and UVW-100BP to be operated with two NP-1B batteries
•Supplies DC 12V to the DSR-1P, PVV-1AP/3P and UVW-100BP

Dimensions: 100(W) × 195(H) × 44(D)mm ($4 \times 7^{3}/_{4} \times 1^{3}/_{4}$ inches)
Mass: 230g (8 oz)
Supplied accessories:
Screws (M3 × 6)



## DC-500 (Mount type)
### Battery case for BP-90A
•Battery case for one BP-90A battery
•Designed for the DSR-1P, PVV-3P and UVW-100BP
•Supplies DC 12V

Dimensions: 147(W) × 207(H) × 62(D)mm ($5^{7}/_{8} \times 8^{1}/_{4} \times 2^{1}/_{2}$ inches)
Mass: 400g (14 oz)
Supplied accessories:
Screws (M3 × 5)



## DC-210 (waist belt type)
### Battery case for BP-90A
•Battery case for one BP-90A battery pack
•Supplies DC 12V to Sony video equipment

Dimensions: 145(W) × 180(H) × 85(D)mm ($5^{3}/_{4} \times 7^{1}/_{8} \times 3^{3}/_{8}$ inches)
Mass: 500g (1 lb 2 oz)
Supplied accessories:
Power cord (1.2m) (×1)
Belt

## BP-L60/L90
### Rechargeable battery pack
•Supplies DC 12V to DSR-1P and PVV-3P

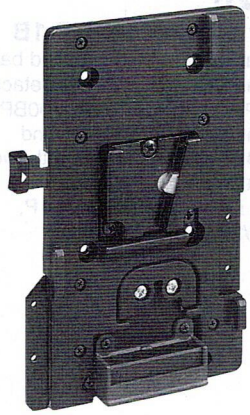
Type of battery:
Lithium-ion battery
Maximum voltage:
16.8V
Nominal voltage:
14.4V
Capacity: 60Wh (BP-L60)
90Wh (BP-L90)
Dimensions:
BP-L60:
101(W) × 37(H) × 168.7(D)mm ($4 \times 6^{5}/_{8} \times 1^{1}/_{2}$ inhes)
BP-L90:
101(W) × 60(H) × 168.7(D)mm ($4 \times 2^{3}/_{8} \times 6^{5}/_{8}$ inches)
Mass: BP-L60:
Approx. 900g (1 lb 16 oz)
BP-L90:
Approx. 1300g (2 lb 14 oz)

## BKW-L601

### Battery adaptor for between DSR-1P, PVV-3P and BP-L90/BP-L60

•Can be attached to the optional battery case of the DSR-1P DVCAM recorder and the PVV-3P Betacam SP 2000 PRO recorder
•Allows the DSR-1P and the PVV-3P to be operated with
BP-L60 and BP-L90

Dimensions: 89(W) × 141.4(H) × 14.2(D)mm ($3^5/_8 \times 5^5/_8 \times {}^9/_{16}$ inches)
Mass: 110g (4 oz)



## BC-L100CE

### Battery charger for BP-L60/ BP-L90/NP-1B/BP-90A

•Battery charger for BP-L60/BP-L90/ NP-1B/BP-90A batteries
•Up to four BP-L60, BP-L90, NP-1B or BP-90A can be charged

Power requirements: AC100V to 240V, 50/60Hz
Power consumption: 110W
Charging time: BP-L60: Approx. 2.5 hours
BP-L90: Approx. 3.5 hours
NP-1B: Approx. 70 min
Dimensions: 330(W) × 131(H) × 144(D)mm ($13 \times 5^1/_4 \times 5^3/_4$ inhes)
Mass: Approx. 2kg (4 lb 7 oz)

# Basic Consoles

## System consoles

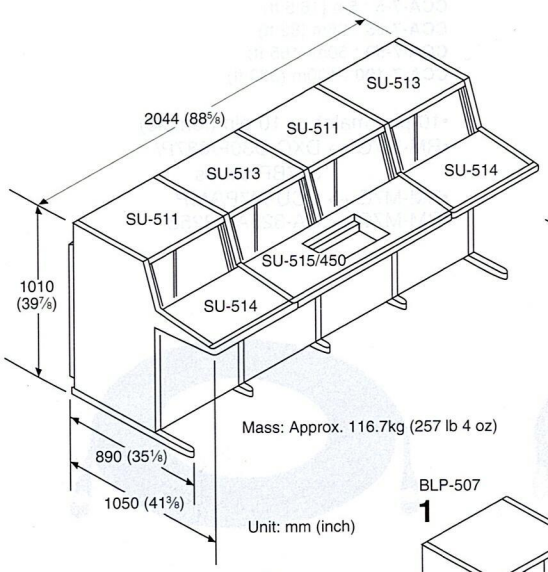
SU-450 Double size table for RM-450CE/DME-450P
SU-511 Unit rack
SU-512 Unit table
SU-513 Extension rack
SU-514 Extension table
SU-515 Double size table for RM-440
CT-501 Caster

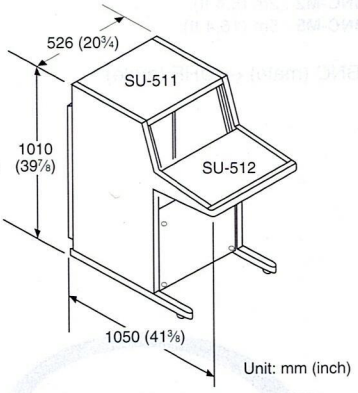
## Rack mount metals

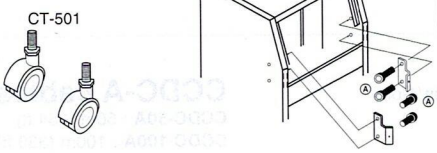
RMM-450 For RM-450CE/DME-450P mounting
RMM-501 For Type-5/9 series VTR mounting
RMM-502 For RM-500 or RM-V5 mounting
RMM-503 For RM-580 mounting
RMM-504 For RM-440 mounting
RMM-505 For RM-500 (× 2), RM-V5 (× 2) or RM-500/RM-V5 mounting
RMM-506 For Betamax or audio equipment mounting
RMM-507 For Type-7/9 series VTR mounting (except VO-9850P/9800P)

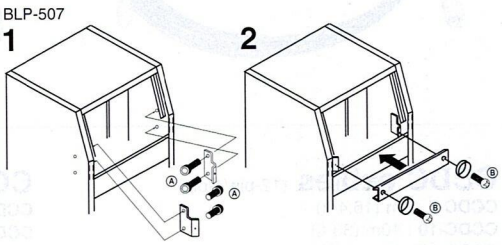
## Blank panels

BLP-501 1U Blank panel
BLP-502 2U Blank panel
BLP-503 3U Blank panel
BLP-504 1U Pad panel
BLP-505 2U Pad panel
BLP-506 6U Modification panel
BLP-507 Blank panel



## BNC-M cables (BNC/UHF)

**BNC-M2** : 2m (6.4 ft)
**BNC-M5** : 5m (16.4 ft)

•BNC (male) ↔ UHF (male)

## CCA-7 cables (10-pin/10-pin)

**CCA-7-5** : 5m (16.5 ft)
**CCA-7-25** : 25m (82 ft)
**CCA-7-50** : 50m (165 ft)
**CCA-7-100** : 100m (330 ft)

•10-pin (male) ↔ 10-pin (female)
•RM-M7G ↔ DXC-D30P/637P/
327BP series
•RM-M7G ↔ CCU-M7P/M5P
•RM-M7G ↔ CA-325AP/325B

## CCD cables (UHF/UHF)

**CCD-3-1W** : 3C2V, 1m (3.3 ft)
**CCD-3-3W** : 3C2V, 3m (10 ft)
**CCD-5-5W** : 5C2V, 5m (16.4 ft)
**CCD-5-10W** : 5C2V, 10m (33 ft)
**CCD-5-25W** : 5C2V, 25m (82 ft)
**CCD-5-50W** : 5C2V, 50m (164 ft)

•UHF (male) ↔ UHF (male)

## CCDC cables (12-pin/4-pin)

**CCDC-5** : 5m (16.4 ft)
**CCDC-10** : 10m (33 ft)
**CCDC-25** : 25m (82 ft)

•12-pin (female) ↔ 4-pin (male)
•DXC-107AP/151AP/930P/950P ↔
CMA-D2CE
•RM-930 ↔ CMA-D2CE

## CCDC-A cables (12-pin/4-pin)

**CCDC-50A** : 50m (164 ft)
**CCDC-100A** : 100m (330 ft)

•12-pin (female) ↔ 4-pin (male)
•DXC-107AP/151AP/930P/950P ↔
CMA-D2CE
•RM-930 ↔ CMA-D2CE

## CCDD-2.5 (4-pin/4-pin)

•4-pin (male) ↔ 4-pin (female), 2.5m (8.2 ft)
•SEG-2000AP series ↔ CRK-2000P

## CCDQ-06 (14-pin/4-pin)

•14-pin (male) ↔ 4-pin (male), 0.6m (2 ft)

## CCF cables (6-pin/6-pin)

**CCF-1** : 1m (3.3 ft)
**CCF-5** : 5m (16.4 ft)
**CCF-10** : 10m (33 ft)
**CCF-25** : 25m (82 ft)
**CCF-50** : 50m (164 ft)

•6-pin (male) ↔ 6-pin (female)
•SEG-2000AP/2550AP ↔ WEX-2000P

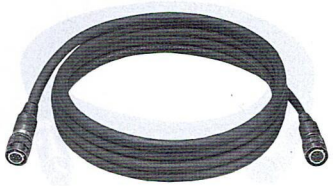
## CCJQ-05 (14-pin/10-pin)

•14-pin (male) ↔ 10-pin (female), 0.5m
(1.6 ft)

## CCMC cables (12-pin/12-pin)

**CCMC-12P02** : 2m (6.4 ft)
**CCMC-12P05** : 5m (16.4 ft)
**CCMC-12P10** : 10m (33 ft)
**CCMC-12P25** : 25m (82 ft)

•12-pin (male) ↔ 12-pin (female)
•DXC-107AP series ↔ CMA-D7CE
•DXC-107AP/151AP/930P/950P ↔ CMA-D2CE
•DXC-930P/950P ↔ RM-930
•RM-930 ↔ CMA-D2CE

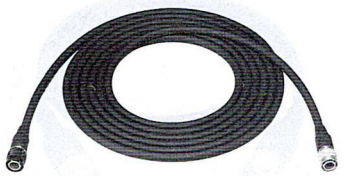


## CCMC-12P10C (12-pin/12-pin)

•12-pin (male) ↔ 12-pin (female), 10m (33 ft)
•DXC-C1MDP Camera Head ↔ DXC-C1MDP Camera Control Unit

## CCMC-1210P3 (12-pin/10-pin)

•12-pin (male) ↔ 10-pin (male), 3m (10 ft)
•RM-930 ↔ CCU-M7P/M5P
•For remote control system of lens zoom and focus functions

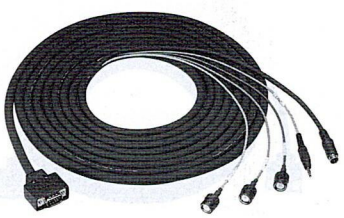


## CCMC-9DS (9-pin/4BNCs, DIN 4-pin)

•9-pin D-sub (male) ↔ BNCs (R/G/B/SYNC, male), DIN 4-pin (Y/C, male)
•5m (16.4 ft)
•For video output from DXC-151AP/930P/950P

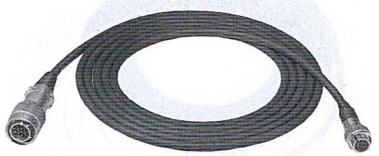
## CCMC-9DSMN (9-pin/3BNCs, AUDIO MINI JACK, DIN 4-pin)

•9-pin D-sub (male) ↔ BNCs (R/G/B, male), DIN 4-pin (Y/C, male), AUDIO MINI JACK (SYNC), 5m (16.4 ft)
•DXC-/950P ↔ UP-7300MDP/5600MDP/1850EPM/1800EPM/1200AEPM
•DXC-930P ↔ MPU-F100P



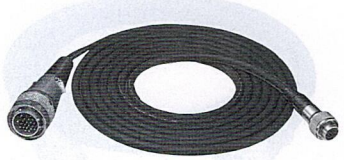
## CCTQ-3RGB (20-pin/14-pin)

•DXC-930P/950P ↔ CCU-M5P, 3m (10 ft)
•CCQQ-1 interconnection adaptor is supplied
•It is possible to extend the cable length with CCQ-AM cable
•RGB/VBS output to CCU-M5P



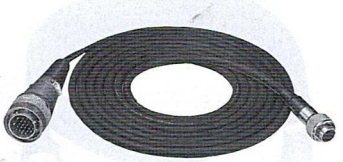
## CCTZ-3RGB (20-pin/26-pin)

•DXC-950P ↔ CCU-M5P or DXC-930P ↔ CCU-M7P/M5P, 3m (10 ft)
•CCZZ-1E interconnection adaptor is supplied
•It is possible to extend the cable length with CCZ-A cable
•RGB/VBS output to CCU-M7P/M5P



## CCTZ-3YC (20-pin/26-pin)

•DXC-950P ↔ CCU-M5P or DXC-930P ↔ CCU-M7P/M5P, 3m (10 ft)
•CCZZ-1E interconnection adaptor is supplied
•It is possible to extend the cable length with CCZ-A cable
•YC/VBS output to CCU-M7P/M5P



## CCQ-AM cables (14-pin/14-pin)

**CCQ-10AM** : 10m (33 ft)
**CCQ-25AM** : 25m (82.5 ft)
**CCQ-50AM** : 50m (165 ft)
**CCQ-100AM** : 100m (330 ft)

•14-pin (male) ↔ 14-pin (female)
•DXC-637P/537AP/327AP ↔ CCU-M5P

## CCQ-BRS cables (14-pin/14-pin)

**CCQ-2BRS** : 2m (6.4 ft)
**CCQ-5BRS** : 5m (16.4 ft)
**CCQ-10BRS** : 10m (33 ft)
**CCQ-25BRS** : 25m (82.5 ft) only for projector
**CCQ-50BRS** : 50m (165 ft) only for projector

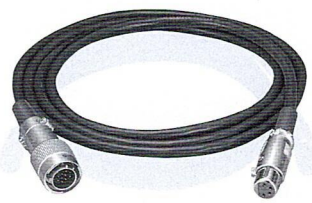
•14-pin (male) ↔ 14-pin (female)
•DXC-D30P/637P/327BP, EVW-300P ↔ VO-8800P/CMA-8ACE, S-VHS VTR
•VPH-1292QM/1272QM/1252QM/RVP-6010QM/4015QM/401QM ↔ PC-1271M

## CCQJ-2 (14-pin/10-pin)

•14-pin (female) ↔ 10-pin (male), 2m (6.6 ft)
•DXC-637P/537AP/327AP ↔ 1/2-inch VHS VTRs

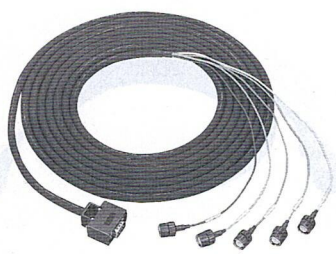
## CCQX-3 (14-pin/XLR 4-pin)

•14-pin (male) ↔ XLR 4-pin (female), 3m (10 ft)
•For external DC input to DXC-637P/537AP/327AP/EVW-300P from CMA-8ACE



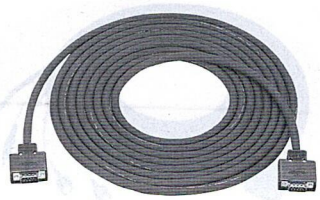
## CCXC-9DB (9-pin/5BNCs)

•9-pin D-sub (male) ↔ BNCs (R/G/B/SYNC/VBS) (male)
•5m (16.4 ft)
•For video output from DXC-151AP/930P/950P



## CCXC-9DD (9-pin/9-pin)

•9-pin D-sub (male) ↔ 9-pin D-sub (male)
•5m (16.4 ft)
•For video output from DXC-151AP/930P/950P



## CCZ-A cables (26-pin/26-pin)

**CCZ-A2** : 2m (6.5 ft)
**CCZ-A5** : 5m (16.5 ft)
**CCZ-A10** : 10m (33 ft)
**CCZ-A25** : 25m (82 ft)
**CCZ-A50** : 50m (164 ft)
**CCZ-A100** : 100m (330 ft)

•26-pin (male) ↔ 26-pin (female)
•DXC-D30P/637P/327BP series ↔ CCU-M7P/M5P

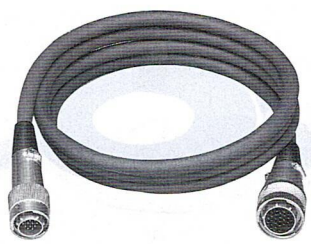
## CCZ-M cables (26-pin/26-pin)

**CCZ-M10** : Extension cable (10m) 33 ft
**CCZ-M100** : Extension cable (100m) 330 ft

## CCZQ-A cables (14-pin/26-pin)

**CCZQ-A2** : 2m (6.6 ft)
**CCZQ-A5** : 5m (16.5 ft)
**CCZQ-A10** : 10m (33 ft)

•14-pin (male) ↔ 26-pin (female)
•DXC-D30P/637P/327BP series, UVW-100P ↔ VO-8800P, S-VHS VTR
•DXC-637P/537AP/327AP series ↔ CMA-8ACE



## CCZQ-A2AM cable (14-pin/26-pin)

•14-pin (male) ↔ 26-pin (female)
•DXC-D30P/637P/327BP series ↔ CCU-M5P

## RCC-A cables (15-pin/15-pin)

**RCC-5A** : 5m (16 ft)
**RCC-11A** : 10m (33 ft)

•15-pin (male) ↔ 15-pin (female)
•BVE-600 ↔ MXP-290
•BVE-910 (with BKE-916A) ↔ MXP-290

## RCC-5AA cable (9-pin/15-pin)

**Audio mixer control cable**

•9-pin (male) ↔ 15-pin (female), 5m (16ft)
•PVE-500 ↔ MXP-290

## RCC-15FT (33-pin/33-pin)

**Remote control extension cable**

•33-pin (male) ↔ 33-pin (female), 15m (49.2 ft)
•RM-450CE/500/555/580 ↔ All Type-5/7/9 VTRs, EVO-9800P/9850P

## RCC-5F (33-pin/33-pin)

**Remote control cable**

•33-pin (male) ↔ 33-pin (female), 5m (16.4 ft)
•RM-450CE/500/555/580 ↔ All Type-5/7/9 VTRs, EVO-9800P/9850P

## RCC-G cables (9-pin/9-pin)

**RCC-5G** : 5m (16 ft)
**RCC-10G** : 10m (33 ft)
**RCC-30G** : 30m (99 ft)

•9-pin (male) ↔ 9-pin (male)
•PVW-series VTRs, UVW-1800P/1700GP/1600P, VO-9850/9800P, EVO-9850P/9800P, SVO-5800P/SVP-5600P ↔ 9-pin equipped Sony machines

## SIC-M cables (14-pin/14-pin)

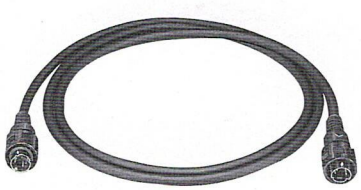
**SIC-M1** : 1m (3.3 ft)
**SIC-M5** : 5m (16.4 ft)
**SIC-M15** : 15m (49 ft)
**SIC-M25** : 25m (82 ft)
**SIC-M50** : 50m (164 ft)

•14-pin (male) ↔ 14-pin (female)
•VPH-1292QM/1272QM/1252QM, RVP-6010QM/4015QM/401QM ↔ PC-1271M

## SYC cables (4-pin/4-pin)

**SYC-2** : 2m (6.4 ft)
**SYC-5** : 5m (16.4 ft)

•Mini DIN 4-pin(male) ↔ Mini DIN 4-pin (female)
•PVW/UVW series VTRs
•SVO-5800P/9620/9500MDP, SVP-5600P/9020
•EVO-9850P/9800P/9700P/9650P/9500P
•SVT-S3000P



## UGC cables (BNC/BNC)

**UGC-0.5** : 0.5m (1.6 ft)
**UGC-1** : 1m (3.3 ft)
**UGC-2** : 2m (6.4 ft)
**UGC-5** : 5m (16.4 ft)
**UGC-10** : 10m (33 ft)
**UGC-25** : 25m (82.5 ft)

•BNC (male) ↔ BNC (male), 3C-2V

## VDC-5A (7-pin/7-pin)

**Dubbing cable**

•7-pin (male) ↔ 7-pin (female), 5m (16.4 ft)
•VTRs with ↔ VTRs with
7-pinDUB connector 7-pinDUB connector
VCS-500
DA-500
•DA-500 ↔ DA-500
•PVW series VTRs ↔ U-matic VTRs

## VDC-C5 (12-pin/12-pin)

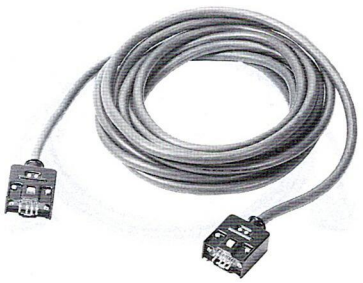
**Dubbing cable**

- 12-pin/12-pin, 5m (16 ft)
- PVW series VTRs
- UVW-1800P/1600P

## VMC cables (8-pin/8-pin)

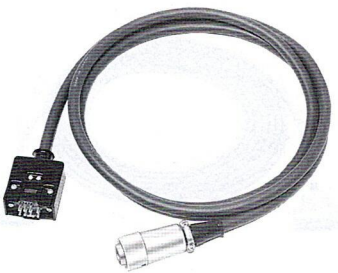
**VMC-3P** : 3m (10 ft)
**VMC-5P** : 5m (16.4 ft)
**VMC-10P** : 10m (33 ft)
**VMC-25P** : 25m (82 ft)
**VMC-50P** : 50m (164 ft)

- 8-pin (male) ↔ 8-pin (male)
- VTR ↔ Monitor
  TV tuner
- TV tuner ↔ projector



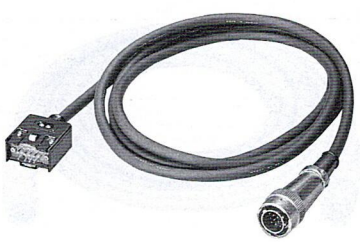
## VMC-1M (10-pin/8-pin)

- 10-pin (male) ↔ 8-pin (male), 1.5m (5 ft)
- Monitor ↔ AV portable VTR



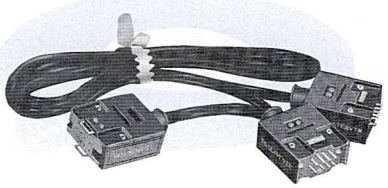
## VMC-1MQ (14-pin/8-pin)

- 14-pin (male) ↔ 8-pin (male), 1.5m (5 ft)
- VO-8800P ↔ Monitor
  TV tuner



## VMC-1N (8-pin/8-pin)

- 8-pin (male) ↔ 8-pin (male)/(female)
- Open reel VTR ↔ Open reel VTR and monitor



## VMC-1H (8-pin female/8-pin female)

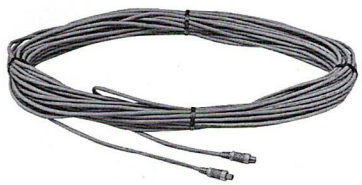
- 8-pin male-to-male connector
- Connect two 8-pin cables

# 4. Connecting cables

## VK-110A/120A (4-pin/4-pin)

**VK-110A** : 10m (33 ft)
**VK-120A** : 20m (65.6 ft)

•4-pin (male) ↔ 4-pin (male)
•SSC-534AM ↔ SSM-504AM/724AMR



## VK-305 (4-pin/4-pin)

•4-pin (male) ↔ 4-pin (female) , 5m (16.4 ft)
•Water-resistant extention cable
SSC-534AM ↔ SSM-504AM/724AMR

## VK-310A/320A (4-pin/4-pin)

VK-310A : 10m (33 ft)
VK-320A : 20m (65.6 ft)

•4-pin (male) ↔ 4-pin (male)
•SSC-534AM ↔ SSM-504AM/724AMR

# Cable connections

| | | Video camera | | | | | |
|---|---|---|---|---|---|---|---|
| | | DXC-30P/637P/327BP with CA-537P | DXC-30P/637P/327BP with CA-327P | DXC-950P | DXC-930P | DXC-107AP | DXC-151AP |
| VTR | VO-8800P or S-VHS VTR | CCZQ-A | CCQ-BRS | --- | | --- | --- |
| Camera control unit | CCU-M7P | CCZ-A | --- | --- | CCTZ-3RGB/3YC+ CCZ-A | --- | --- |
| | CCU-M5P | CCZ-A | CCQ-AM | CCTZ-3RGB/3YC+ CCZ-A or CCTQ-3RGB+ CCQ-AM | CCTZ-3RGB/3YC+ CCZ-A or CCTQ-3RGB+ CCQ-AM | --- | --- |
| camera AC adaptor | CMA-8ACE | CCZQ-A/ CCQX-3 | CCQ-BRS CCQX-3 | --- | --- | --- | --- |
| | CMA-D7CE | --- | --- | --- | --- | CCMC-12P/UGC | --- |
| | CMA-D2CE | --- | --- | CCDC/CCMC-12P | CCDC/CCMC-12P | CCDC/CCMC-12P | CCDC/CCMC-12P |

### Audio monitor cable

**MPC-03-SC**: XLR-3-11C type (female)—mini 3m
•-9dB built-in attenuation
•Impedance matching register

### Audio connecting cords

RK-5XLRF

**RK-5XLRF**: XLR-3-11C type (female)—phono, 5m
**RK-5XLRM:** XLR-3-12C type (male)—phono, 5m

## Memo

# Memo

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